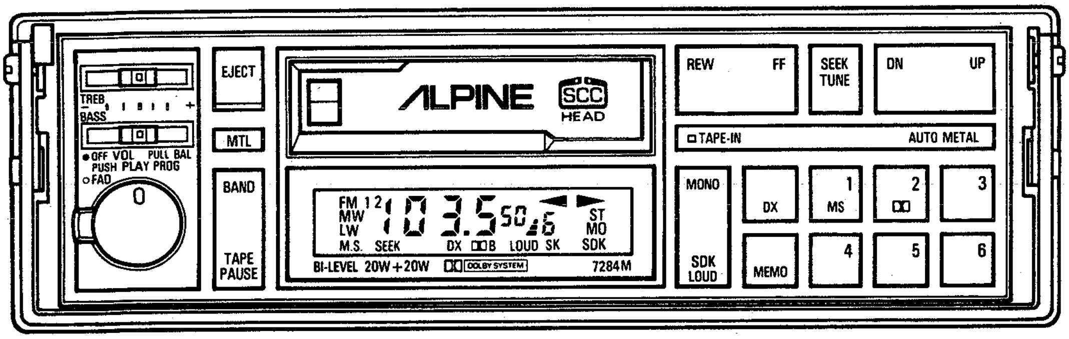
ALPINE SERVICE MANUAL

DIGITAL TUNER

CASSETTE


TREB
BASS
● OFF VOL PULL BAL
PUSH PLAY PROG
○ FAD
EJECT
MTL
BAND
TAPE PAUSE
ALPINE
SCC HEAD
FM 1 2
MW
LW
103.5
ST
MO
M.S. SEEK DX B LOUD SK SDK
BI-LEVEL 20W+20W DOLBY SYSTEM 7284M
REW FF
SEEK TUNE
DN UP
TAPE-IN
AUTO METAL
MONO
SDK LOUD
DX
MEMO
1 MS
2
3
4
5
6

Model 7284M

For the cassette deck mechanism parts of this model, refer to the GZ Series (GZ75E23A) Service Manual (68P80518F02).

7284M/L/E

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Specifications

FM RADIO

Intermediate Frequency	10.7±0.1 MHz
Frequency Range	87.5 to 108 MHz
Usable Sensitivity (Stereo at 98.1 MHz)	19.2 dBf
Limiting Sensitivity (98.1 MHz)	14.2±3 dBf
S/N Ratio (Stereo 60 dBu 98.1MHz)	50 dB (7284M/L Model only)
	48dB (7284E Model only)
Image Rejection (at 106.1 MHz)	40 dB
IF Rejection (at 90.1 MHz)	60 dB
Distortion (Input 1 mV at 98.1 MHz)	1%
Frequency Response (Ref. 400 Hz)	
(80 Hz)	0±3 dB (7284E Model only)
(100 Hz)	0±3 dB (7284M/L Model only)
(10 kHz)	−12±3 dB
Stereo Separation (at 1,000 Hz)	25 dB
SK Sensitivity (at 98.1 MHz)	25.2 dBf (7284M Model only)

AM RADIO (7284E Model only)

Intermediate Frequency	450 kHz
Frequency Range	531 to 1,602 kHz
Sensitivity 20 dB S/N (at 999 kHz)	45.2 dBf
S/N Ratio (at 999 kHz)	44 dB
Image Rejection (at 1,404 kHz)	50 dB
IF Rejection (at 603 kHz)	60 dB
Distortion (at 999 kHz)	1%
Frequency Response (at 999 kHz Ref. 400 Hz)	
(100 Hz)	−3±5 dB
(4 kHz)	−15±5 dB

MW RADIO (7284M/L Model only)

Intermediate Frequency	459 ±5 kHz
Frequency Range	531 to 1,602 kHz
Sensitivity 20 dB S/N (at 999 kHz)	45.2 dBf
S/N Ratio (at 999 kHz)	44 dB
Image Rejection (at 1,404 kHz)	45 dB
IF Rejection (at 603 kHz)	60 dB
Distortion (at 999 kHz)	1%
Frequency Response (at 999 kHz Ref. 400 Hz)	
(100 Hz)	−3±3 dB
(4 kHz)	−15±6 dB

LW RADIO (7284M/L Model only)

Intermediate Frequency	459 ±5 kHz
Frequency Range	153 to 281 kHz
Sensitivity 20 dB S/N (at 218 kHz)	52.2 dBf
S/N Ratio (at 218 kHz)	40 dB
Image Rejection (at 272 kHz)	40 dB
IF Rejection (at 218 kHz)	50 dB
Distortion (at 218 kHz)	1.5%
Frequency Response (Ref. 400 Hz)	
(100 Hz)	−3±3 dB
(4 kHz)	−17±6 dB

TAPE PLAYER

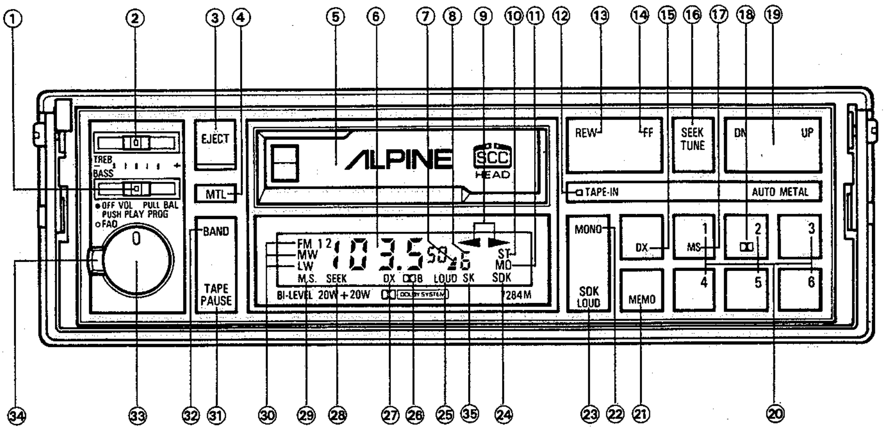
Wow & Flutter (JIS, WRMS/MTT-111)	0.15%
Tape Speed (MTT-111)	4.75 cm/sec. +3 to −1%
Signal to Noise Ratio (Ref 315 Hz)	
Dolby OFF (MTT-112)	50 dB (7284M/L Model only)
Dolby OFF (MTT-112)	52 dB (7284E Model only)
Dolby B	58 dB (7284M/L Model only)
Dolby B	60 dB (7284E Model only)
Distortion (MTT-118)	2% (7284M/L Model only) 2.5% (7284E Model only)
Frequency Response	
(Ref. 1 kHz, −3 dB, MTT-256)	40 Hz to 14 kHz (7284M/L Model only)
(Ref. 1 kHz, −3 dB, MTT-256)	50 Hz to 14 kHz (7284E Model only)
Separation (MTT-141)	30 dB
Crosstalk (MTT-121)	45 dB
FF & RWD Time (C-60)	100 sec

GENERAL

Load Impedence	4 ohms (Power Output) 10k ohms (Pre-out)
Power Supply	14.4V DC
Power-Output (10% THD Ref. 400 Hz)	9 W/ch
Pre-Output Voltage	1,200 mV ±3 dB (7284M/L Model only) 1,200 mV (7284E Model only)
Semiconductors	14 ICs, 57 Transistors, 62 Diodes, 19 Zener Diodes (7284M Model only) 12 ICs, 44 Transistors, 51 Diodes, 17 Zener Diodes (7284L Model only) 11 ICs, 46 Transistors, 35 Diodes, 13 Zener Diodes (7284E Model only)
Chassis Dimension (W×H×D)	178×50×153 mm
Nose Dimension (W×H×D)	178×50×15 mm
Weight	1.8 kg

Parts Locations and Disassembly Instructions

① BASS control and Indicator
② TREBLE Control and Indicator
③ EJECT Switch
④ Metal-CrO_2 Tape Indicator
⑤ Loading Slot
⑥ Digital Display
⑦ Memory Indicator
⑧ Preset Channel Indicator
⑨ Tape Direction Indicators
⑩ FM Stereo Reception Indicator
⑪ Monaural Indicator (MO)
⑫ Tape-In Indicator
⑬ Tape REW Switch
⑭ Tape FF Switch
⑮ DX (Local/Distance) Switch
⑯ SEEK Tuning Switch
⑰ MUSIC SENSOR Switch (Tape Mode)
⑱ DOLBY B-Type NR Switch (Tape Mode)
⑲ Manual Tuning Switch
⑳ Station Preset Switches (Radio Mode)
㉑ Station MEMORY Switch
㉒ MONAURAL Switch
㉓ SDK/LOUDNESS Switch*
㉔ LOUDNESS Indicator
㉕ DOLBY NR (B-Type) Indicator
㉖ DX (Local/Distance) Indicator
㉗ SDK Indicator
㉘ SEEK Tuning Indicator
㉙ MUSIC SENSOR Indicator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TREB
BASS
OFF VOL PULL BAL
PUSH PLAY PROG
FAD
0
EJECT
MTL
BAND
TAPE PAUSE
ALPINE
SCC
HEAD
FM 12
MW
LW
103.5
M.S. SEEK DX LOUD SK SDK
ST
MO
BI-LEVEL 20W+20W
7284M
REW
FF
SEEK TUNE
DN
UP
TAPE-IN
AUTO METAL
MONO
DX
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SDK LOUD
MEMO
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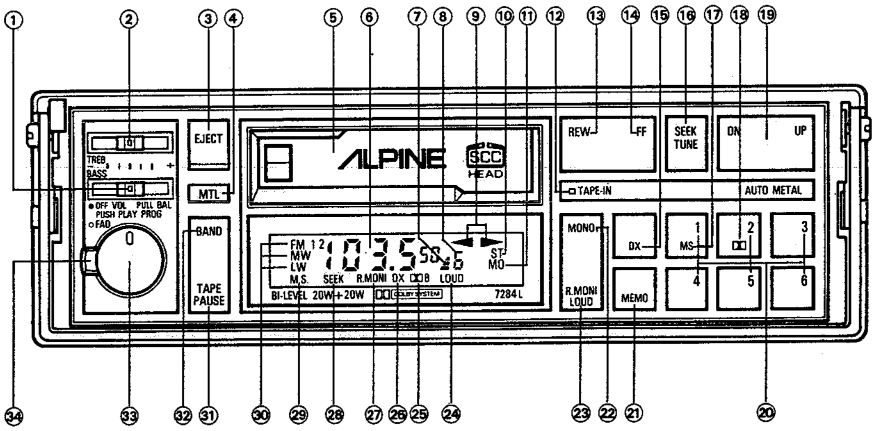
(7284M Model only)

Figure 1

㉚ Radio Band Indicator
㉛ TAPE PAUSE Switch
㉜ Radio BAND Select Switch
㉝ POWER On/Off Switch/VOLUME Control/BALANCE Control (pull)/ PLAY/PROGRAM (Push) Switch
㉞ FADER Control
㉟ DIMMER Select Switch (Right side of Unit)
㊱ SK Indicator

* For Loudness control, keep pressing this switch for 3 seconds for longer.

① BASS control and Indicator
② TREBLE Control and Indicator
③ EJECT Switch
④ Metal-CrO_2 Tape Indicator
⑤ Loading Slot
⑥ Digital Display
⑦ Memory Indicator
⑧ Preset Channel Indicator
⑨ Tape Direction Indicators
⑩ FM Stereo Reception Indicator
⑪ Monaural Indicator (MO)
⑫ Tape-In Indicator
⑬ Tape REW Switch
⑭ Tape FF Switch
⑮ DX (Local/Distance) Switch
⑯ SEEK Tuning Switch
⑰ MUSIC SENSOR Switch (Tape Mode)
⑱ DOLBY B-Type NR Switch (Tape Mode)
⑲ Manual Tuning Switch
⑳ Station Preset Switches (Radio Mode)
㉑ Station MEMORY Switch
㉒ MONAURAL Switch
㉓ RADIO MONITOR/LOUDNESS* Switch
㉔ LOUDNESS Indicator
㉕ DOLBY NR (B-Type) Indicator
㉖ DX (Local/Distance) Indicator
㉗ RADIO MONITOR Indicator
㉘ SEEK Tuning Indicator
㉙ MUSIC SENSOR Indicator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TREB
BASS
OFF VOL PULL BAL
PUSH PLAY PROG
FAD
0
EJECT
MTL
BAND
TAPE PAUSE
ALPINE
SCC
HEAD
FM 12
MW
LW
103.5
M.S. SEEK R.MONI DX LOUD
ST
MO
BI-LEVEL 20W+20W
7284L
REW
FF
SEEK TUNE
DN
UP
TAPE-IN
AUTO METAL
MONO
DX
MS
R.MONI LOUD
MEMO
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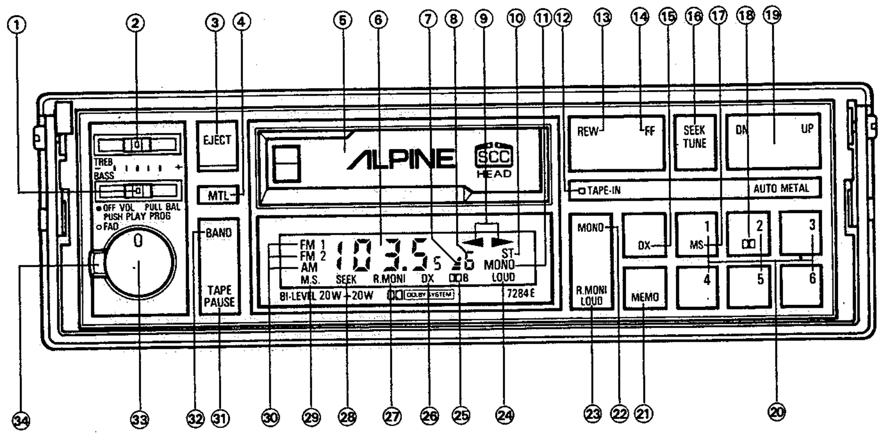
(7284L Model only)

Figure 2

㉚ Radio Band Indicator
㉛ TAPE PAUSE Switch
㉜ Radio BAND Select Switch
㉝ POWER On/Off Switch/VOLUME Control/BALANCE Control (pull)/ PLAY/PROGRAM (Push) Switch
㉞ FADER Control
㉟ DIMMER Select Switch (Right side of Unit)
㊱ MW/LW Preset Number Select Switch (Bottom of Unit)

* For Loudness control, keep pressing this switch for 3 seconds for longer.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⑱
⑲
EJECT
ALPINE
SCC HEAD
REW
FF
SEEK TUNE
DN
UP
TREB
BASS
MTL
TAPE-IN
AUTO METAL
OFF VOL PULL BAL
PUSH PLAY PROG
FAD
BAND
FM 1
FM 2
AM
103.5 5 6
ST
MONO
M.S. SEEK R.MONI DX DB LOUD
BI-LEVEL 20W+20W
DOLBY SYSTEM
7284E
TAPE PAUSE
MONO
DX
MS
1
2
3
4
5
6
R.MONI LOUD
MEMO
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(7284E Model only)

Figure 3

① BASS control and Indicator
② TREBLE Control and Indicator
③ EJECT Switch
④ Metal-CrO₂ Tape Indicator
⑤ Loading Slot
⑥ Digital Display
⑦ Memory Indicator
⑧ Preset Channel Indicator
⑨ Tape Direction Indicators
⑩ FM Stereo Reception Indicator
⑪ Monaural Indicator (MONO)
⑫ Tape-In Indicator
⑬ Tape REW Switch
⑭ Tape FF Switch
⑮ DX (Local/Distance) Switch
⑯ SEEK Tuning Switch
⑰ MUSIC SENSOR Switch (Tape Mode)
⑱ DOLBY B-Type NR Switch (Tape Mode)
⑲ Manual Tuning Switch
⑳ Station Preset Switches (Radio Mode)
㉑ Station MEMORY Switch
㉒ MONAURAL Switch
㉓ RADIO MONITOR/LOUDNESS* Switch
㉔ LOUDNESS Indicator
㉕ DOLBY NR (B-Type) Indicator
㉖ DX (Local/Distance) Indicator
㉗ RADIO MONITOR Indicator
㉘ SEEK Tuning Indicator
㉙ MUSIC SENSOR Indicator
㉚ Radio Band Indicator
㉛ TAPE PAUSE Switch
㉜ Radio BAND Select Switch
㉝ POWER On/Off Switch/VOLUME Control/BALANCE Control (pull)/ PLAY/PROGRAM (Push) Switch
㉞ FADER Control
㉟ DIMMER Select Switch (Right side of Unit)

* For Loudness control, keep pressing this switch for 3 seconds or longer.

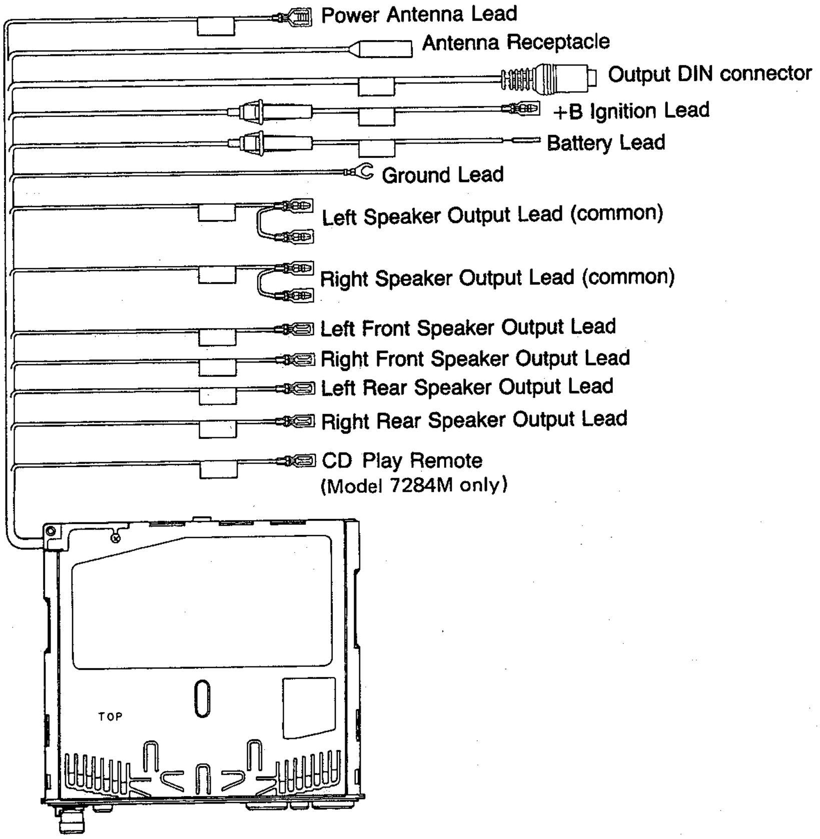

Power Antenna Lead
Antenna Receptacle
Output DIN connector
+B Ignition Lead
Battery Lead
Ground Lead
Left Speaker Output Lead (common)
Right Speaker Output Lead (common)
Left Front Speaker Output Lead
Right Front Speaker Output Lead
Left Rear Speaker Output Lead
Right Rear Speaker Output Lead
CD Play Remote
(Model 7284M only)
TOP

Figure 4

1. Removal of Bracket Handol

(1) Remove four screws marked "○" as shown in Figures 5 and 6.

(2) Remove a stud pin as shown in Figure 5.

2. Removal of Top Cover

(1) Remove four screws marked "△" as shown in Figures 5 and 6.

(2) Pull out top cover in the direction of the arrow as shown in Figure 5.

3. Removal of Bottom Cover

(1) Remove two screws marked "●" as shown in Figure 6.

4. Removal of Heat Sink

(1) Remove four screws "★" as shown in Figure 6.

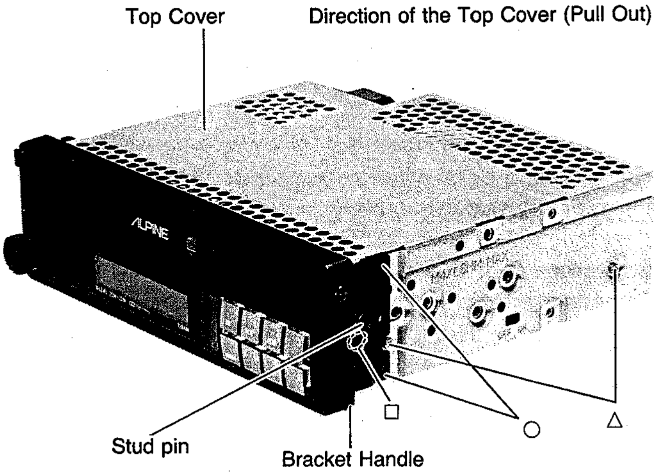

Top Cover
Direction of the Top Cover (Pull Out)
Stud pin
Bracket Handle
□
○
△

Figure 5

5. Removal of Nosepiece

(1) Remove two control knobs (Volume, Balance) and two slide knobs as shown in Figure 7.

(2) Remove two screws marked "□" as shown in Figure 5 and 7.

6. Removal of Front P.C. Board

(1) After removal of nosepiece, disconnect parallel wires from Main P.C. Board by removing the solder (a) as shown in Figure 11.

(2) Remove two screws marked "#" as shown in Figure 8.

(3) Disconnect all wires from the P.C. Board.

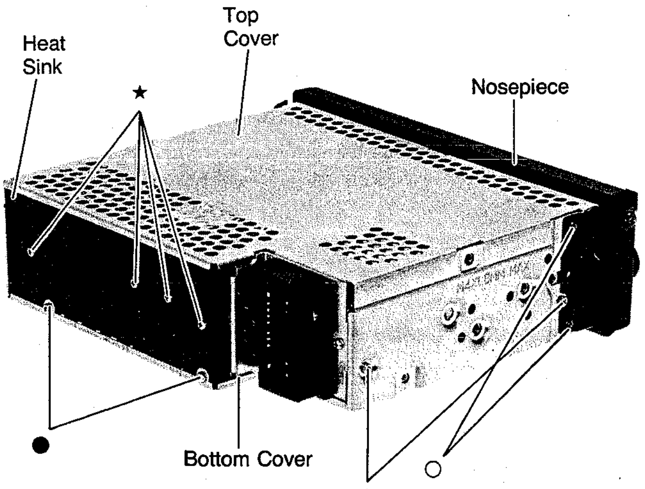

Heat Sink
★
Top Cover
Nosepiece
●
Bottom Cover
△
○

Figure 6

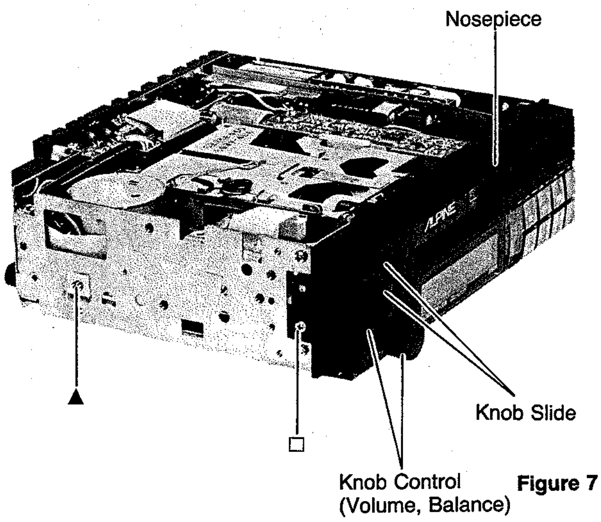

Nosepiece
▲
□
Knob Slide
Knob Control
(Volume, Balance)

Figure 7

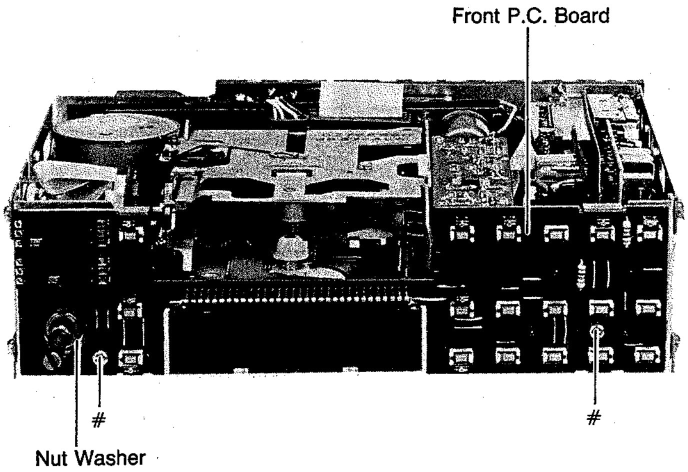

Front P.C. Board
#
Nut Washer
#

Figure 8

7. Removal of Cassette Deck

(1) After removal of top cover, remove four screws marked "▲" as shown in Figures 7 and 9.
(2) Disconnect all wires from the cassette deck.
(3) Cassette deck with Pre-Amp P.C. Board can be removed completely.

8. Removal of Pre-Amp P.C. Board

(1) After removal of cassette deck, remove the solder (b) as shown in Figure 10.
(2) Disconnect all wires from the Pre-Amp P.C. Board.

9. Removal of Tone P.C. Board

(1) After removal of cassette deck, disconnect one connector from Tone P.C. Board as shown in Figure 9.
(2) Disconnect all wires from the Tone P.C. Board.

10. Removal of Power Amp P.C. Board

(1) After removal of heat sink, remove the solder (d) as shown in Figure 9.
(2) Remove a screw marked "▼" as shown in Figure 9.
(3) Disconnect all wires from the Power Amp P.C. Board.

11. Removal of Dolby P.C. Board (7284E Model only)

(1) Remove the solder (e) as shown in Figure 11.
(2) Disconnect one connector from Dolby P.C. Board as shown in Figure. 9.

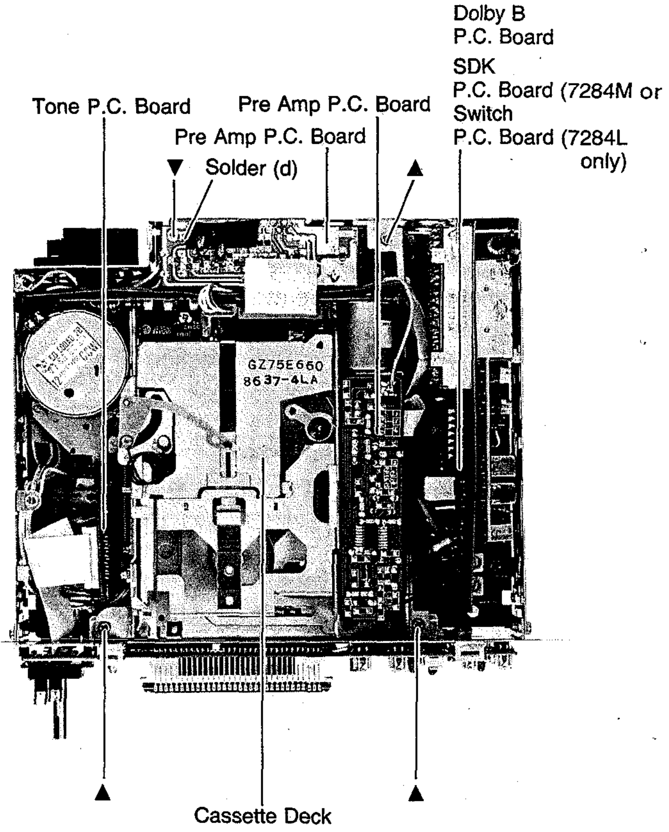

Dolby B
P.C. Board
SDK
P.C. Board (7284M or
Switch
P.C. Board (7284L
only)
Tone P.C. Board
Pre Amp P.C. Board
Pre Amp P.C. Board
▼ Solder (d)
▲
▲
Cassette Deck
▲

Figure 9

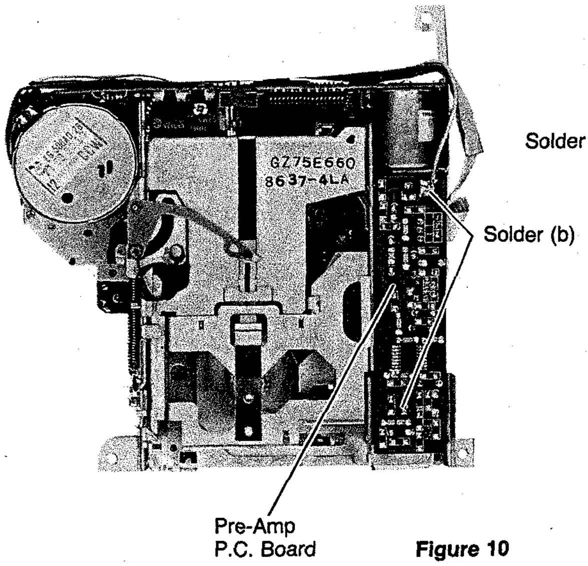

Solder (b)
Pre-Amp
P.C. Board

Figure 10

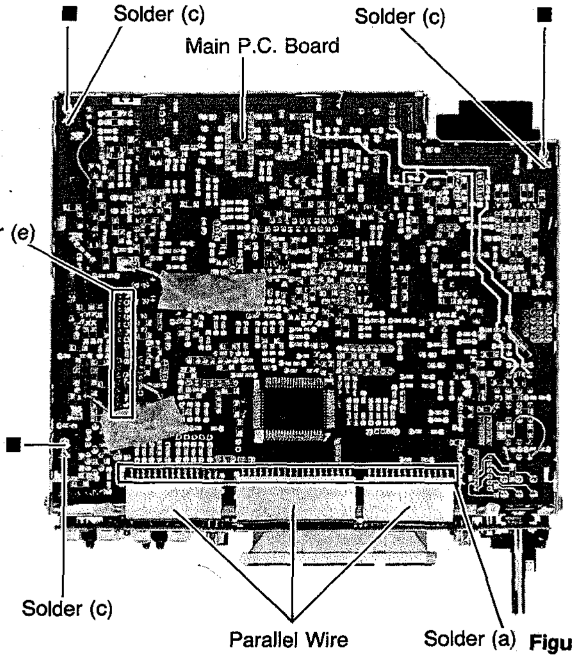

■
Solder (c)
Main P.C. Board
Solder (c)
■
Solder (e)
■
Solder (c)
Parallel Wire
Solder (a)

Figure 11

12. Removal of SDK P.C. Board (7284M Model only)

(1) Remove the solder (e) as shown in Figure 11.

13. Removal of Switch P.C. Board (7284L Model only)

(1) Remove the solder (e) as shown in Figure 11.

14. Removal of Main P.C. Board (7284M Model only)

(1) After removal of SDK P.C. Board and Tone P.C. Board, remove the solder (c) as shown in Figure 11.
(2) Remove three screws marked "■" as shown in Figure 11.
(3) Disconnect all wires from Main P.C. Board.
(4) Remove nut and washer as shown in Figure 8.

14. Removal of Main P.C. Board (7284L Model only)

(1) After removal of Switch P.C. Board and Tone P.C. Board, remove the solder (c) as shown in Figure 11.
(2) Remove three screws marked "■" as shown in Figure 11.
(3) Disconnect all wires from Main P.C. Board.
(4) Remove nut and washer as shown in Figure 8.

14. Removal of Main P.C. Board (7284E Model only)

(1) After removal of Dolby P.C. Board and Tone P.C. Board, remove the solder (c) as shown in Figure 11.
(2) Remove three screws marked "■" as shown in Figure 11.
(3) Disconnect all wires from Main P.C. Board.
(4) Remove nut and washer as shown in Figure 8.

Adjustment Procedures

1. SDK Section (7284M Model only)

(1) Dummy Antenna

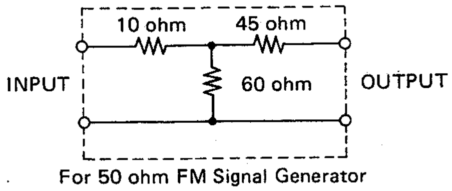

10 ohm
45 ohm
INPUT
60 ohm
OUTPUT
For 50 ohm FM Signal Generator

Figure 12

(2) Connection

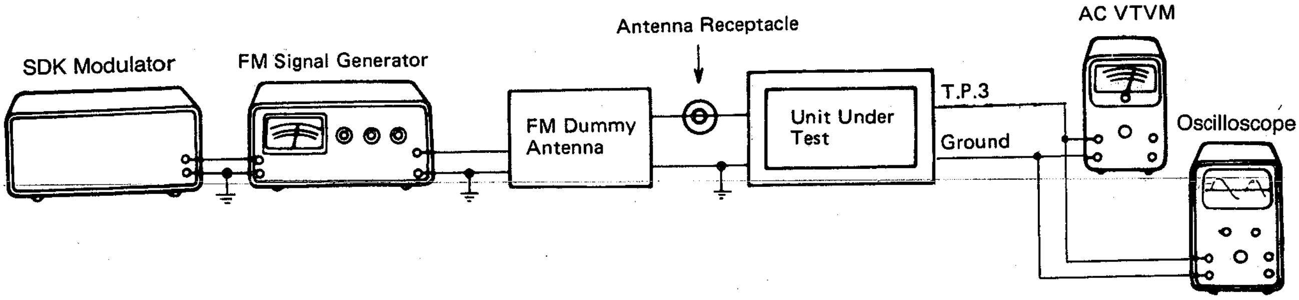

Antenna Receptacle
AC VTVM
SDK Modulator
FM Signal Generator
T.P.3
Oscilloscope
FM Dummy Antenna
Unit Under Test
Ground

Figure 13

(3) Control Setting

Power Switch .... ON
Band Select Switch .... SDK
Fader Control .... Center position
Balance Control .... Mechanical center
Treble/Bass Control .... Mechanical center
Others .... OFF

(4) Adjustment Procedures

Step	Description	Connection	Signal Generator	Dial Control	Adjustment
1	SK Adjustment	Figure 13	98.1 MHz, 15 dBμ (SK,BK:ON, DK:OFF)	98.1 MHz	Adjust L1601 for lighting SK
2	DK Adjustment	Figure 13	98.1 MHz, 66 dBμ (SK,BK:OFF, DK:ON)	98.1 MHz	Adjust VR1601 for max. output at T.P.3

2. Tape Section

(1) Connection

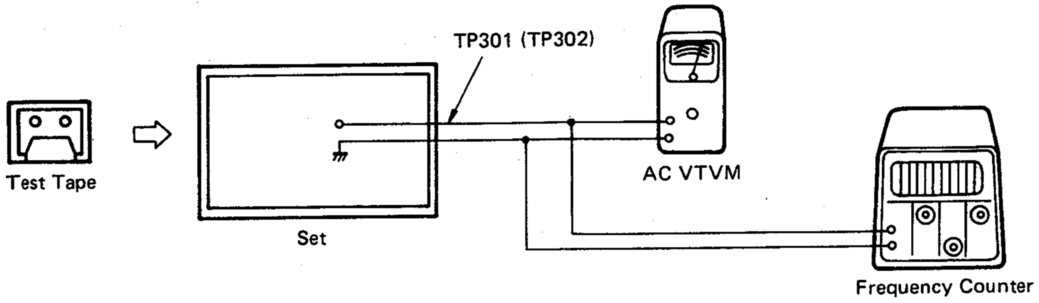

TP301 (TP302)
Test Tape
AC VTVM
Set
Frequency Counter

Figure 14

(2) Control Setting

Power Sw. .... ON
Fader Control .... Front position
Balance Control .... Mechanical center
Treble/Bass Control .... Mechanical center
Other Sw. .... OFF

(3) Adjustment Procedure

Step	Description	Test Tape	Connection	Test Point	Adjustment point	Adjustment
1	Head Azimuth Adjustment	MTT-114NB (14 kHz)	Figure 14	T.P.1 (L) T.P.2 (R)	Head Azimuth Adjustment Screw (Figure 15)	Adjust for Max. and same level output at Normal and Reverse Positions.
2	Dolby Level Adjustment	MTT-150 (400 Hz)	Figure 14	T.P.1 (L) T.P.2 (R)	VR202 (L)–7284E only VR102 (R)–7284M/L only VR201 (R)–7284E only VR101 (L)–7284M/L only	T.P.1 (T.P.2) Output for 300 mV±1 dB
3	Tape Speed Adjustment	MTT-111 (3 kHz)	Figure 14	T.P.1 (L) or T.P.2 (R)	Tape Speed Adjustment Volume (Figure 16)	T.P.1 (T.P.2) for 3030 – 3045 Hz

Adjustment Locations

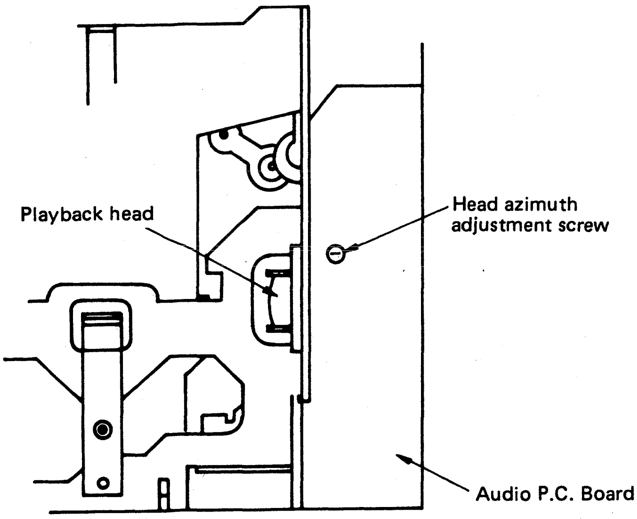

Playback head
Head azimuth adjustment screw
Audio P.C. Board

Figure 15

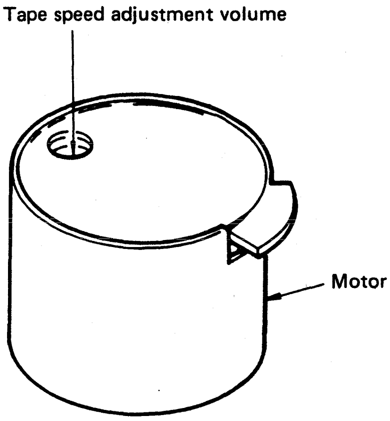
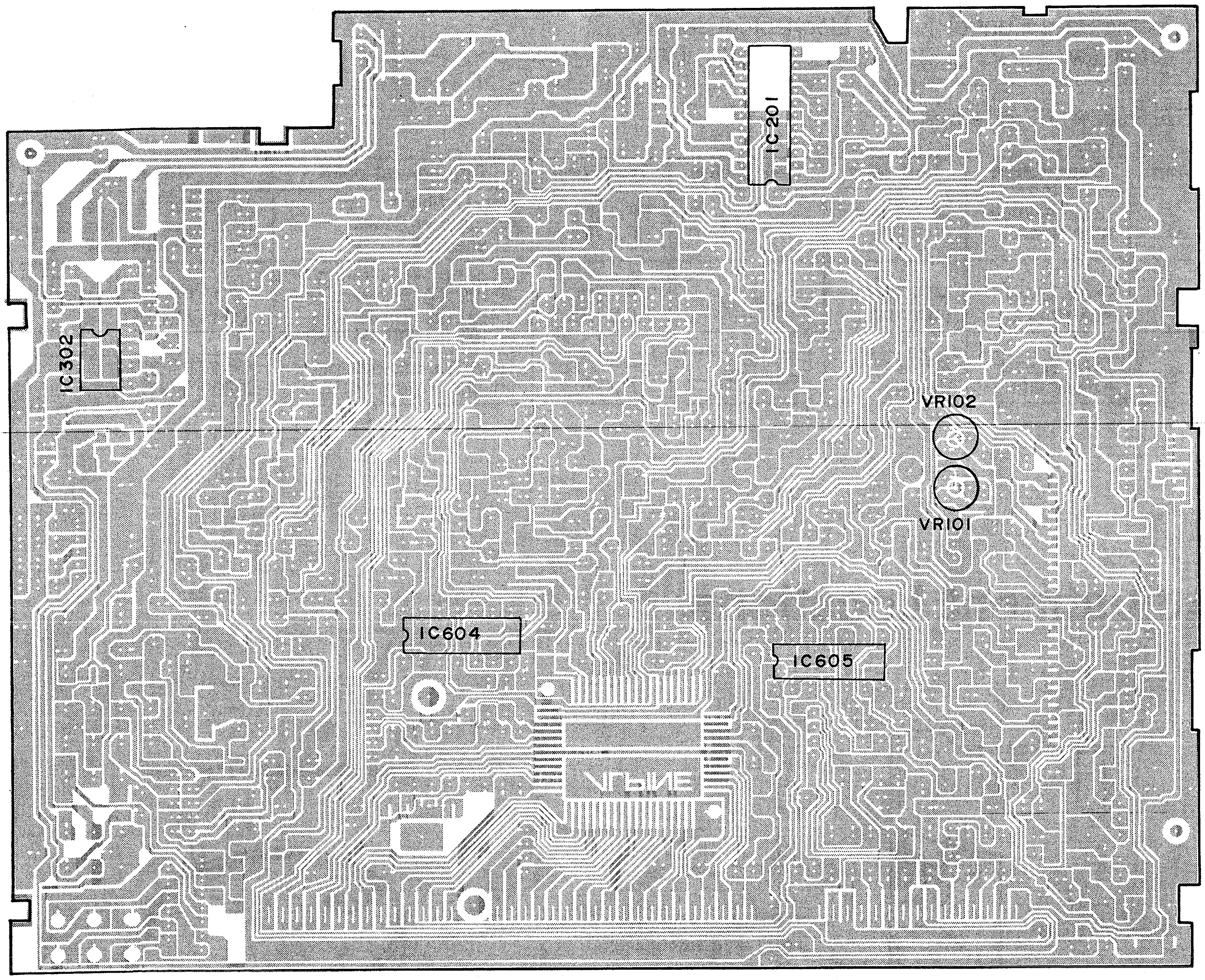
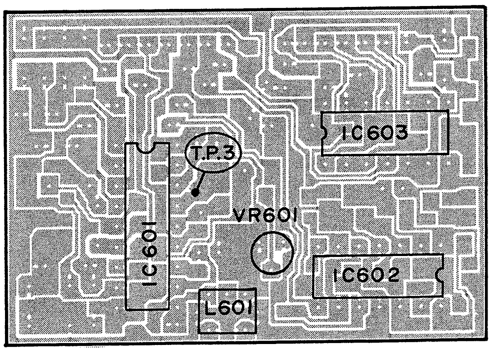

Tape speed adjustment volume
Motor

Figure 16


IC201
IC302
VR102
VR101
IC604
IC605

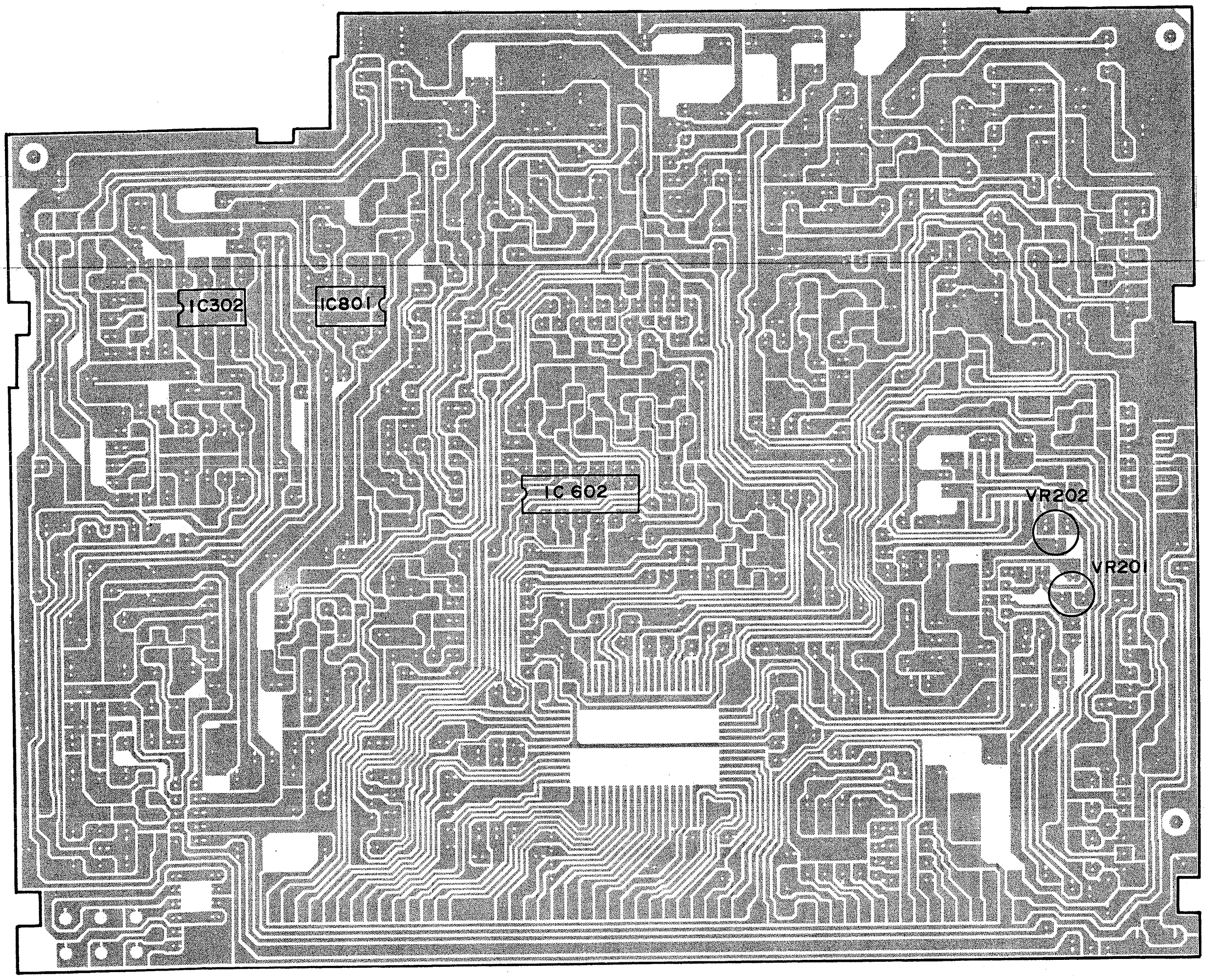
Main P.C. Board (7284M/L Model only)

Figure 17


IC603
T.P.3
VR601
IC601
IC602
L601

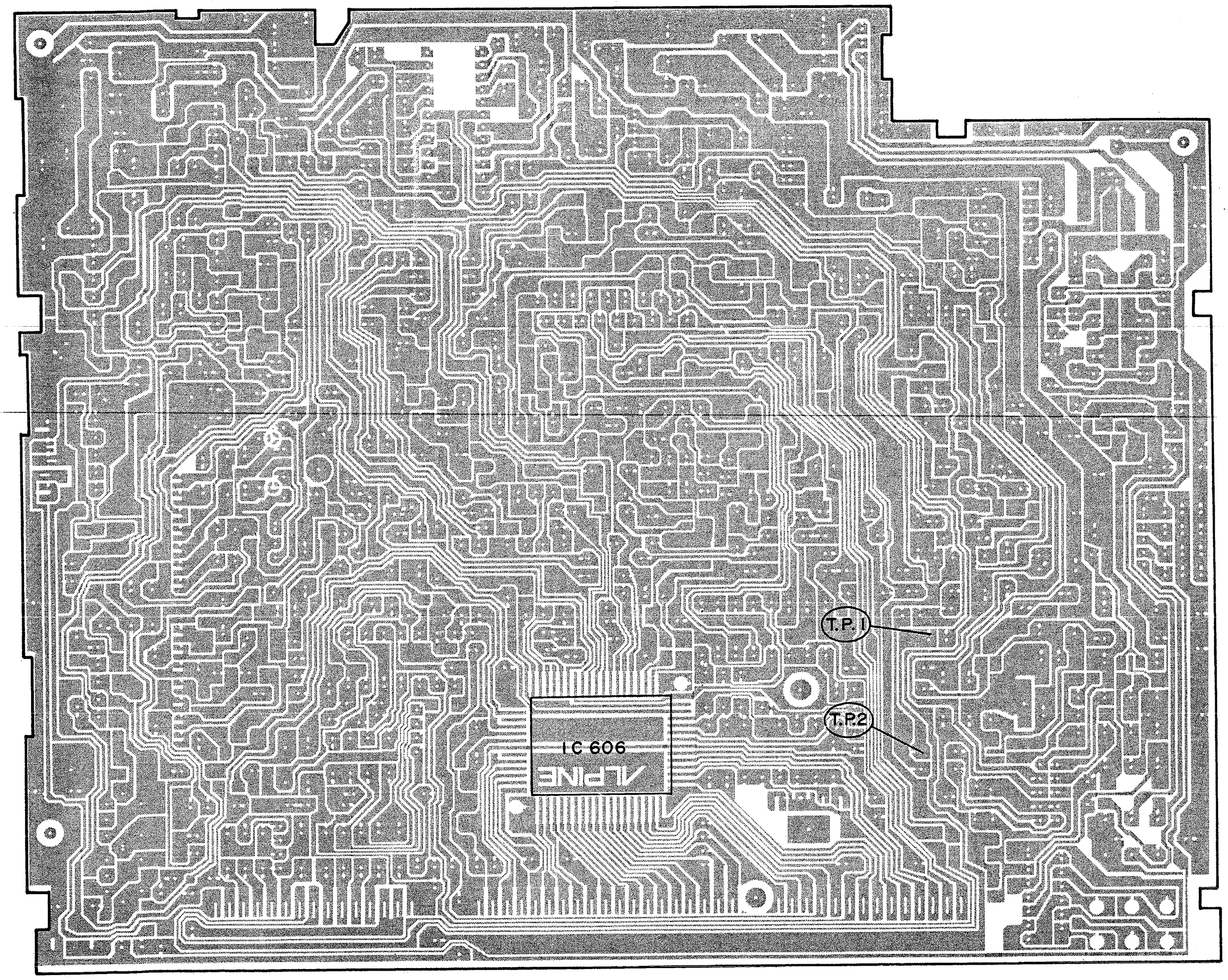
SDK P.C. Board (7284M Model only)

Figure 18


IC302
IC801
IC 602
VR202
VR201

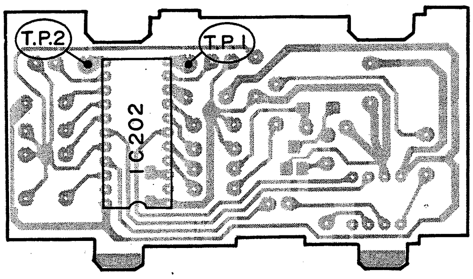
Main P.C. Board (7284E Model only)

Figure 19


T.P. 1
T.P.2
IC 606
ALPINE

Main P.C. Board (7284M/L Model only)(Bottom View)

Figure 20

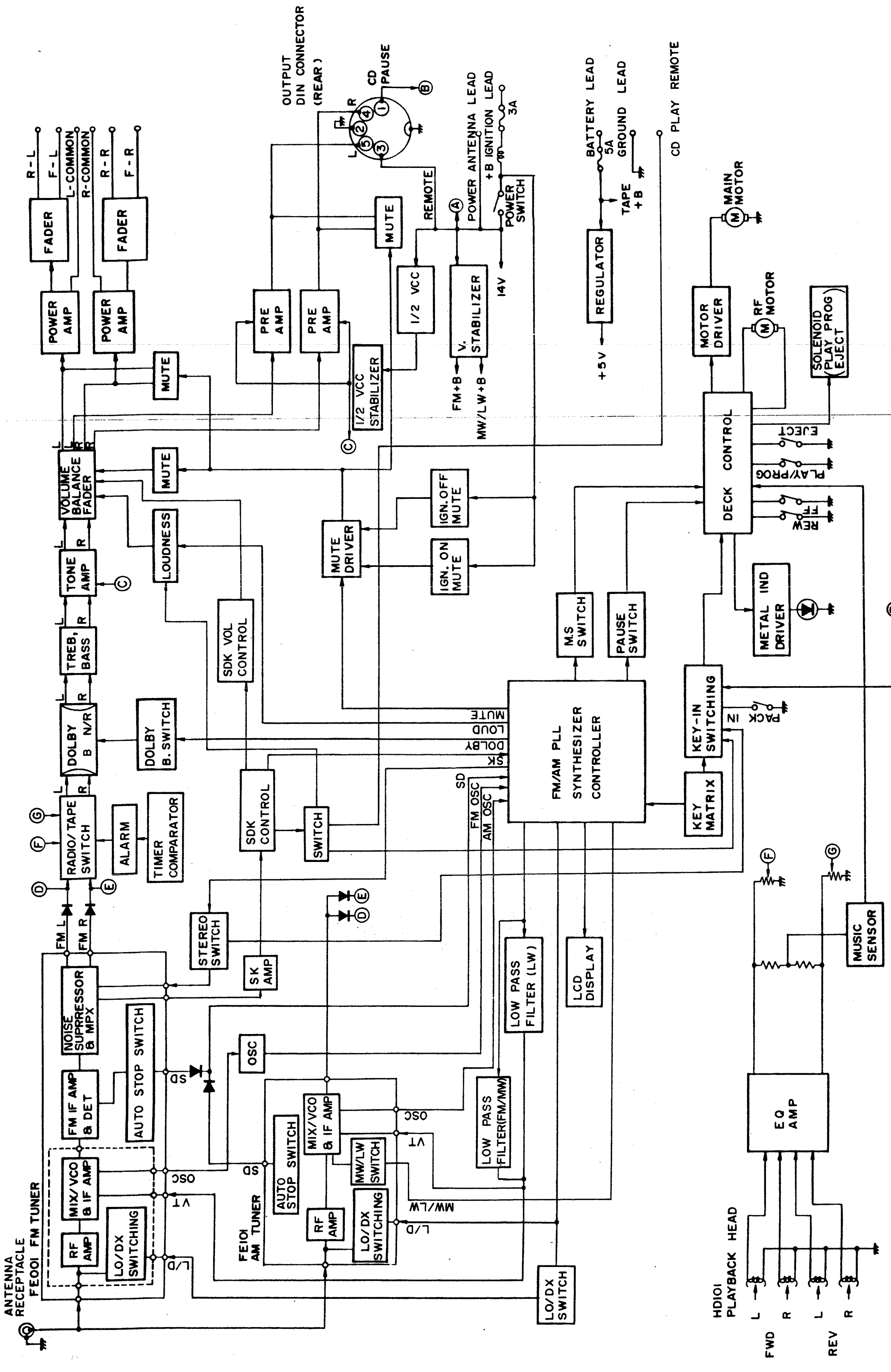

T.P.2
T.P.1
IC202

Dolby P.C. Board (7284E Model only)

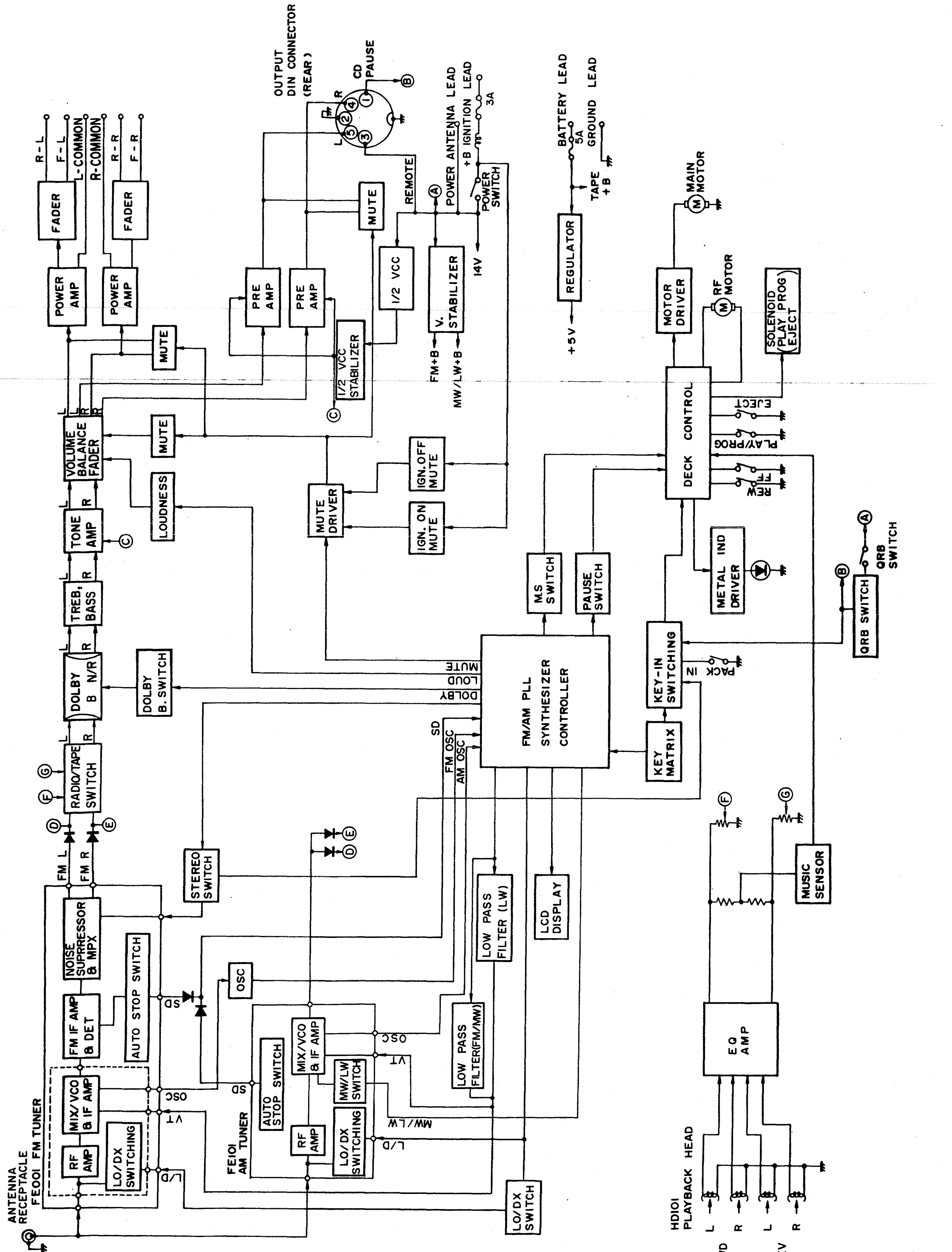
Figure 21

Block Diagram

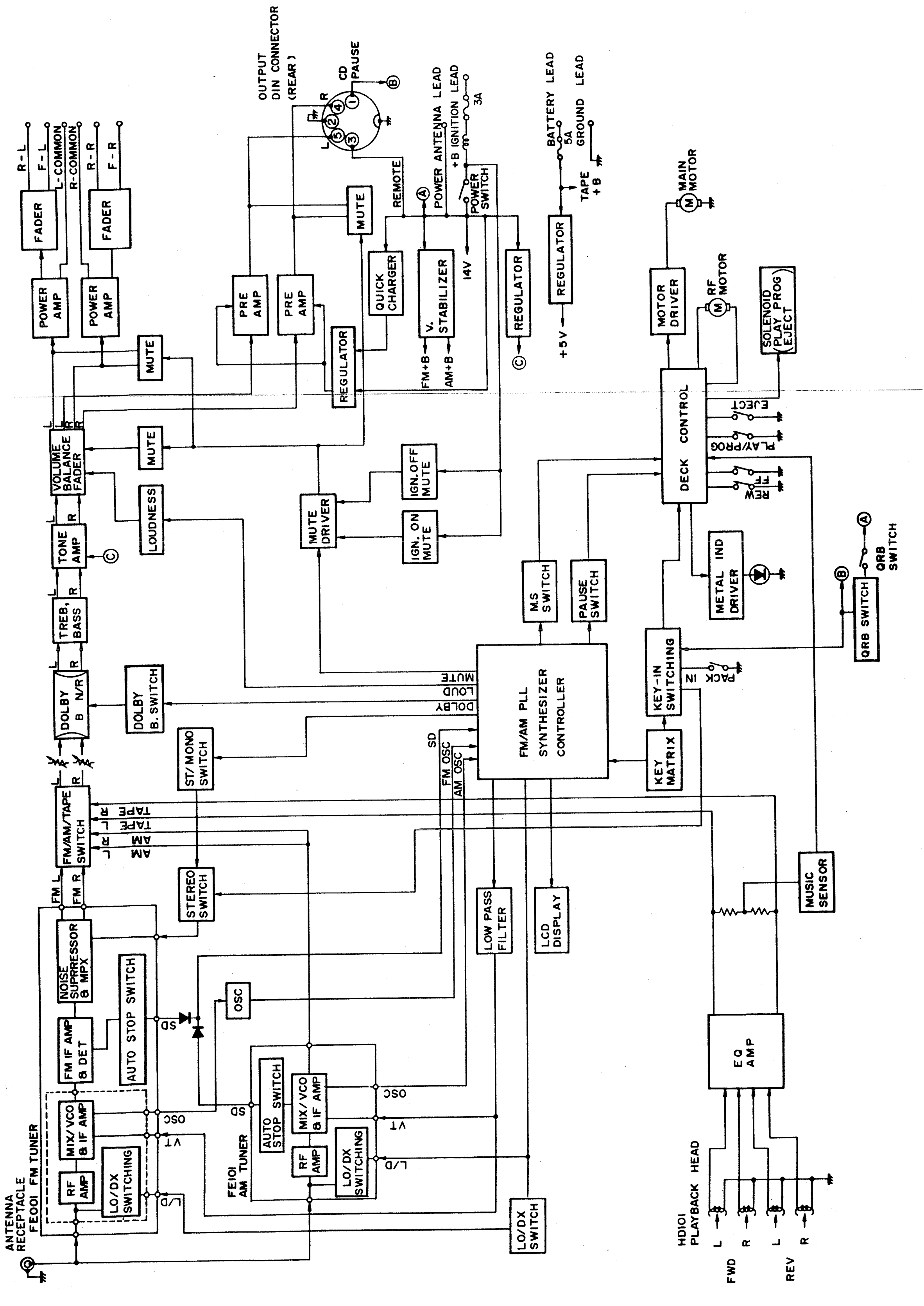
(7284M Model only)


ANTENNA RECEPTACLE
FE001 FM TUNER
RF AMP
MIX/VCO & IF AMP
LO/DX SWITCHING
FM IF AMP & DET
AUTO STOP SWITCH
NOISE SUPPRESSOR & MPX
FM L
FM R
RADIO/TAPE SWITCH
ALARM
TIMER COMPARATOR
DOLBY B N/R
DOLBY B.SWITCH
TREB, BASS
TONE AMP
LOUDNESS
VOLUME BALANCE FADER
MUTE
MUTE
POWER AMP
POWER AMP
FADER
FADER
R-L
F-L
L-COMMON
R-COMMON
R-R
F-R
1/2 VCC STABILIZER
PRE AMP
PRE AMP
OUTPUT DIN CONNECTOR (REAR)
CD PAUSE
REMOTE
MUTE
1/2 VCC
V. STABILIZER
POWER ANTENNA LEAD
+B IGNITION LEAD
3A
POWER SWITCH
14V
FM+B
MW/LW+B
BATTERY LEAD
5A
GROUND LEAD
TAPE +B
REGULATOR
+5V
CD PLAY REMOTE
MAIN MOTOR
MOTOR DRIVER
RF MOTOR
SOLENOID (PLAY PROG EJECT)
DECK CONTROL
EJECT
PLAY/PROG
FF
REW
METAL IND DRIVER
QRB SWITCH
QRB SWITCH
KEY-IN SWITCHING
PACK IN
KEY MATRIX
FM/AM PLL SYNTHESIZER CONTROLLER
MUTE
LOUD
DOLBY
SK
SD
FM OSC
AM OSC
MS SWITCH
PAUSE SWITCH
IGN. OFF MUTE
IGN. ON MUTE
MUTE DRIVER
SDK VOL CONTROL
SDK CONTROL
SWITCH
STEREO SWITCH
SK AMP
OSC
SD
FE101 AM TUNER
AUTO STOP SWITCH
RF AMP
MIX/VCO & IF AMP
MW/LW SWITCH
LO/DX SWITCHING
OSC
VT
SD
MW/LW
L/D
VT
OSC
L/D
LOW PASS FILTER (FM/MW)
LOW PASS FILTER (LW)
LCD DISPLAY
LO/DX SWITCH
MUSIC SENSOR
EQ AMP
HD101 PLAYBACK HEAD
L
R
L
R
FWD
REV
A
B
C
D
E
F
G

(7284L Model only)


ANTENNA RECEPTACLE
FE001 FM TUNER
RF AMP
LO/DX SWITCHING
MIX/VCO & IF AMP
FM IF AMP & DET
AUTO STOP SWITCH
NOISE SUPPRESSOR & MPX
FM L
FM R
RADIO/TAPE SWITCH
DOLBY B N/R
DOLBY B.SWITCH
TREB, BASS
TONE AMP
VOLUME BALANCE FADER
LOUDNESS
MUTE
POWER AMP
FADER
R-L
F-L
L-COMMON
R-COMMON
R-R
F-R
PRE AMP
1/2 VCC STABILIZER
1/2 VCC
OUTPUT DIN CONNECTOR (REAR)
CD PAUSE
REMOTE
POWER ANTENNA LEAD
+B IGNITION LEAD
3A
POWER SWITCH
14V
V. STABILIZER
FM+B
MW/LW+B
BATTERY LEAD
5A
GROUND LEAD
TAPE +B
REGULATOR
+5V
MAIN MOTOR
MOTOR DRIVER
RF MOTOR
SOLENOID (PLAY PROG) (EJECT)
DECK CONTROL
EJECT
PLAY/PROG
FF
REW
METAL IND DRIVER
QRB SWITCH
MUTE DRIVER
IGN. OFF MUTE
IGN. ON MUTE
M.S SWITCH
PAUSE SWITCH
FM/AM PLL SYNTHESIZER CONTROLLER
MUTE
LOUD
DOLBY
SD
FM OSC
AM OSC
KEY-IN SWITCHING
PACK IN
KEY MATRIX
STEREO SWITCH
OSC
SD
VT
L/D
MW/LW
FE101 AM TUNER
AUTO STOP SWITCH
MIX/VCO & IF AMP
MW/LW SWITCH
RF AMP
LO/DX SWITCHING
LOW PASS FILTER (LW)
LOW PASS FILTER(FM/MW)
LCD DISPLAY
LO/DX SWITCH
MUSIC SENSOR
EQ AMP
HD101 PLAYBACK HEAD
FWD
REV
L
R
A
B
C
D
E
F
G

(7284E Model only)


ANTENNA RECEPTACLE
FE001 FM TUNER
RF AMP
MIX/VCO & IF AMP
LO/DX SWITCHING
FM IF AMP & DET
NOISE SUPPRESSOR & MPX
AUTO STOP SWITCH
OSC
VT
L/D
SD
FE101 AM TUNER
AUTO STOP SWITCH
STEREO SWITCH
ST/MONO SWITCH
FM L
FM R
FM/AM/TAPE SWITCH
AM L
AM R
TAPE L
TAPE R
DOLBY B N/R
DOLBY B. SWITCH
TREB, BASS
TONE AMP
LOUDNESS
VOLUME BALANCE FADER
MUTE
POWER AMP
FADER
R-L
F-L
L-COMMON
R-COMMON
R-R
F-R
PRE AMP
REGULATOR
QUICK CHARGER
V. STABILIZER
FM+B
AM+B
14V
OUTPUT DIN CONNECTOR (REAR)
CD PAUSE
REMOTE
POWER ANTENNA LEAD
+B IGNITION LEAD
3A
POWER SWITCH
BATTERY LEAD
5A
GROUND LEAD
TAPE +B
+5V
IGN. OFF MUTE
IGN. ON MUTE
MUTE DRIVER
MUTE
LOUD
DOLBY
FM OSC
AM OSC
FM/AM PLL SYNTHESIZER CONTROLLER
LOW PASS FILTER
LCD DISPLAY
LO/DX SWITCH
MS SWITCH
PAUSE SWITCH
KEY MATRIX
KEY-IN SWITCHING
PACK IN
MAIN MOTOR
MOTOR DRIVER
RF MOTOR
SOLENOID (PLAY PROG / EJECT)
DECK CONTROL
EJECT
PLAY/PROG
FF
REW
METAL IND DRIVER
QRB SWITCH
MUSIC SENSOR
EQ AMP
HD101 PLAYBACK HEAD
FWD
REV
L
R
A
B
C

(7284M Model only)

MEASURING CONDITIONS
● Power Supply : 14.4V DC
● Measuring Meter : Digital Mult Voltmeter
● Measuring Point : Between Ground
● Conditions : No Signal
FM.....98.1MHz
MW.....999kHz
LW.....218kHz
Tape...Blank Tape
(Play)

	B	C	E	
Q001	3.5/0	0/7.5	0/0	LOCAL/DX
Q002	0.7	7.9	0	
Q003	1.7	5.9	1.1	
Q101	0/14	7.6/0	0/0	FOR/REV
Q203	0/4.5	4.1/0	0/0	FOR/REV
Q204	9.1	14.2	8.5	
Q301-1	2.4/0	0/0	0/0	LOUD
Q301-2	2.4/0	0/0	0/0	LOUD
Q303	0.7/0	0/0	0/0	DK
Q304	0.7/0	0/0	0/0	DK
Q305	0.7/0	0/0	0/0	DK
Q306	0.7/0	0/0	0/0	DK
Q307-1	4.5/0	0/0	0/0	
Q307-2	4.5/0	0/0	0/0	
Q309	4.4/0	0/8.3	0/0	
Q310	4.5/0	0/0	0/0	
Q311	4.5/0	0/0	0/0	
Q312	0.7/0	0/0	0/0	
Q313	0.7/0	0/0	0/0	
Q602	0.6/7.2	5.9/0	0/0	
Q604	0/5.9	5.9/0	0/0	RADIO/TAPE
Q605	4.4/0	0/5.9	0/0	RADIO/TAPE
Q607	0/6.1	6.0/0	0/0	DK
Q608	0.6/0	5.9/0	0/0	ALARM
Q609	4.4/0	0/13.4	0/0	
Q610	13.4/0	14.2/0	12.1/0	
Q611	0/5.2	9.8/0	0/0	MS
Q612-1	0/0	6.1/PS	0/0	MS
Q612-2	4.5/PS	0/0	0/0	MS
Q614-1	0/10	13.2/0	0/0	PAUSE
Q614-2	4.5/0	0/10	0/0	PAUSE
Q616-1	2.8/0	0/5.4	0/0	FF/REW
Q616-2	0/2.9	5.4/0	0/0	FF/REW
Q618	0/4.5	13.9/1.5	0/1.4	MONO/ST
Q620	PS/0	0/13.5	0/0	
Q621	11.7/2.6	0/PS	PS/PS	ST
Q622-1	8.2/0	0/1.0	0/0	FM/AM
Q622-2	4.5/0	0/1.2	0/0	LW/MW,FM
Q623	1.2	9.8	0	
Q624	0.6	3.3	0	
Q627	1	9.8	0.6	
Q628	0.6	3.6	0	
Q629	4.5	0	0	
Q630	0	13.7	0	
Q631	4 /0	0/5.2	0/0	
Q633	6 /0	0/5.8	0/0	DK
Q634	13.7	0	13.7	
Q637	8.6/0	0/8.6	8.6/0	SDK
Q638	0/4.4	8.6/0	0/0	SDK
Q640	4 /0	5.2/0	4 /0	
Q642	PS/13.5	PS/13.5	PS/0	
Q643	0	13.4	0	
Q644	0/4.7	3.4/0	0/0	DK
Q645	13.7	0	13.7	DK
Q801	9.6	14.2	8.9	
Q802	9.2	4	8.5	

IC101

	METAL ON		OFF
	FOR	REV	
1	12.7	12.7	
2	3	3	
3	12.7	0	
4	3	3	
5	2.9	2.9	
6	2.9	2.9	
7	2.9	2.9	
8	0	0	
9	2.9	2.9	
10	0	0	
11	2.9	2.9	
12	2.9	2.9	
13	2.9	2.9	
14	3	3	
15	0.2	0.2	13
16	3	3	

IC201

	OFF	B
1	0	
2	4.2	
3	1	
4	4.2	
5	1.3	4.2
6	4.2	
7	4.2	
8	4.2	
9	0	
10	0	
11	4.2	
12	4.1	
13	0	
14	0	
15	4.2	
16	4.2	
17	4.2	
18	0	
19	4.1	
20	4.2	
21	4.1	
22	8.4	

IC501

1	14.2
2	7
3	0
4	7
5	0
6	0
7	1.3
8	1.3
9	1.3
10	0
11	1.3
12	0
13	13.8
14	7
15	0
16	7

IC601

	OFF	ON	
1	8	0	SK
2	0.2	6.7	DK
3	0	3.2	SK
4	0	7.1	SK
5	4.3	4.3	
6	4.3	4.3	
7	8.6	8.6	
8	4.3	4.3	
9	5.4	5.4	
10	4.3	4.3	
11	5.4	5.4	
12	4.4	4.4	
13	4.3	4.3	
14	4.3	4.3	
15	4.3	4.3	
16	0	7.3	DK
17	3.6	3.6	
18	0	0	

IC604

	ON/OFF
1	PS/0
2	PS/PS
3	PS/PS
4	PS/0
5	5.4/0
6	5.2/0
7	0/0
8	PS/0
9	PS/PS
10	PS/0
11	PS/PS
12	5.4/0
13	5.2/0
14	5.4/5.4

IC606

	OFF	ON	
1	0		
2	0	1	FM,MW/LW
3	1.2	0	FM,MW/LW
4	0		
5	0	1.8	FM/MW,LW
6	1.2	0	FM/MW,LW
7	5.2		
8	8		
9	4.5	0	MW/FM,LW
10	4.5	0	LW/FM,MW
11	4.5	0	SDK ON/OFF
12	4.5		
13	0	4.5	LOUD OFF/ON
14	4.5	0	RADIO/TAPE
15	0	4.5	MUTE OFF/ON
16	4.5		
17	0		
18	4.5	PS	MS OFF/ON
19	4.5	0	PAUSE OFF/ON
20	4.5	0	ST/MONO
21	3.6	0	LOCAL/DX
22	4.5	0	
23	4.5	0	
24	2.2		
25	2.1		
26	4.6		
27 to 62	PS		
63	0	4.5	SD OFF/ON
64	5.1	0	SK OFF/ON

IC602
SDK-SW (ALARM)

	OFF	ON
1	7.4	PS
2	1.6	PS
3	5.3	PS
4	8.6	8.6
5	5.3	3
6	0.6	7.4
7	7.4	0.6
8	0.6	7.4
9	5.2	3.1
10	0	8.5
11	0	0
12	2.8	PS
13	6.9	PS
14	0.6	PS

IC605

	ON/OFF
1	PS/PS
2	PS/0
3	PS/PS
4	PS/0
5	5.1/0
6	5.17/3.22
7	0/0
8	PS/0
9	PS/PS
10	PS/0
11	PS/PS
12	5.22/0
13	5.13/0
14	5.36/5.36

(7284L Model only)

MEASURING CONDITIONS
● Power Supply : 14.4V DC
● Measuring Meter : Digital Mult Voltmeter
● Measuring Point : Between Ground
● Conditions : No Signal
FM.....98.1MHz
MW.....999kHz
LW.....218kHz
Tape...Blank Tape
(Play)

	B	C	E	
Q001	3.5/0	0/7.8	0/0	LOCAL/DX
Q002	0.7	7.9	0	
Q101	0/14	7.6/0	0/0	FOR/REV
Q203	4.6/0	5.0/9.6	3.3/0	B
Q204	9.1	14	8.6	
Q301-1	2.4/0	0/0	0/0	LOUD
Q301-2	2.4/0	0/0	0/0	LOUD
Q307-1	0/0.7	0/0	0/0	MUTE
Q307-2	0/0.7	0/0	0/0	MUTE
Q309	0/4.4	8.4/0	0/0	
Q310	0/0.7	0/0	0/0	MUTE
Q311	0/0.7	0/0	0/0	MUTE
Q312	0/0.7	0/0	0/0	MUTE
Q313	0/0.7	0/0	0/0	
Q604	0/5.9	5.9/0	0/0	
Q605	4.4/0	0/5.9	0/0	
Q609	4.4/0	0/13.4	0/0	
Q610	13.4/0	14.2/0	12.1/0	
Q611	0/5.2	9.8/0	0/0	MS
Q612-1	0/0	PS/6.1	0/0	MS
Q612-2	PS/4.5	0/0	0/0	MS
Q614-1	0/	13.2/0	0/0	PAUSE
Q614-2	4.5/0	0/10	0/0	PAUSE
Q616-1	2.9/0	0/5.4	0/0	FF/REW
Q616-2	0/2.9	5.4/0	0/0	FF/REW
Q618	0/4.5	4.5/1.5	0/1.4	MONO/ST
Q620	0/	13.7/	0/	
Q621	11.7/2.6	0/PS	PS/PS	ST
Q622-1	8.2/0	0/1	0/0	FM/AM
Q622-2	4.5/0	0/1.2	0/0	LW/MW,FM
Q623	1.2/0	9.8/9.8	0.6/0	
Q624	0.6/0	3.3/3.8	0/0	
Q627	0/1	9.9/9.8	0/1.6	
Q628	0/0.6	9.9/3.9	0/0	
Q629	4.5	0	0	
Q630	0	13.7	0	
Q634	13.7	0	13.7	
Q638	0/	13.7/	0/	
Q640	4/0	5.2/0	4/0	
Q642	PS/13.5	PS/13.5	PS/0	
Q643	0	13.4	0	
Q645	13.7	0	13.7	DK
Q801	9.6	14.2	8.9	
Q804	9.2	14	8.5	
Q807	0/4	9.3/0	0/0	FM/AM
Q810	5.9	13.7	5.2	
Q813	8.7	0	0	
Q814	7	14.1	6.9	

IC101

	METAL ON		OFF
	FOR	REV	
1	12.7	12.7	
2	3.0	3.0	
3	12.7	0	
4	3.0	3.0	
5	2.9	2.9	
6	2.9	2.9	
7	2.9	2.9	
8	0	0	
9	2.9	2.9	
10	0	0	
11	2.9	2.9	
12	2.9	2.9	
13	2.9	2.9	
14	3.0	3.0	
15	0.2	0.2	13.7
16	3.0	3.0	

IC201

	OFF
1	0
2	4.2
3	1
4	4.2
5	1.3
6	4.3
7	4.3
8	4.3
9	0
10	0
11	4.2
12	4.2
13	0
14	0
15	4.2
16	4.2
17	4.2
18	0
19	4.1
20	4.2
21	4.1
22	8.4

IC302

1	0
2	6.7
3	6.9
4	6.9
5	13.8
6	6.9
7	6.9
8	6.7

IC301

1	7.1
2	7
3	7
4	0
5	7
6	7
7	7
8	14.1

IC503

	TAPE	RADIO
1	0	0
2	0	0
3	0	0
4	0	0
5	0	5.9
6	5.9	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	5.9	0
13	5.9	0
14	5.9	5.9

IC605

	ON/OFF
1	PS/PS
2	PS/0
3	
4	
5	
6	5.2/3.2
7	0/0
8	PS/0
9	PS/PS
10	PS/0
11	PS/PS
12	5.2/0
13	5.1/0
14	5.4/5.4

IC606

	OFF	ON	
1	0		
2	0	1	FM,MW/LW
3	1.2	0	FM,MW/LW
4	0		
5	0	1.8	FM/MW,LW
6	1.2	0	FM/MW,LW
7	5.2		
8	8		
9	4.5	0	MW/FM,LW
10	4.5	0	LW/FM,MW
11	4.5	0	R.MONI
12	4.5		
13	0	4.5	LOUD OFF/ON
14	4.5	0	RADIO/TAPE
15	0	4.5	MUTE OFF/ON
16	4.5		
17	0		
18	4.5	PS	MS OFF/ON
19	4.5	0	PAUSE OFF/ON
20	4.5	0	ST/MONO
21	3.6	0	LOCAL/DX
22	4.5	0	
23	4.5	0	
24	2.2		
25	2.1		
26	4.6		
27 to 62	PS		
63	0	4.5	SD OFF/ON
64	5.1		SK OFF/ON

IC604

	ON/OFF
1	PS/0
2	PS/PS
3	PS/PS
4	PS/0
5	5.4/0
6	5.2/0
7	0/0
8	PS/0
9	PS/PS
10	PS/0
11	PS/PS
12	5.4/0
13	5.2/0
14	5.4/5.4

IC801

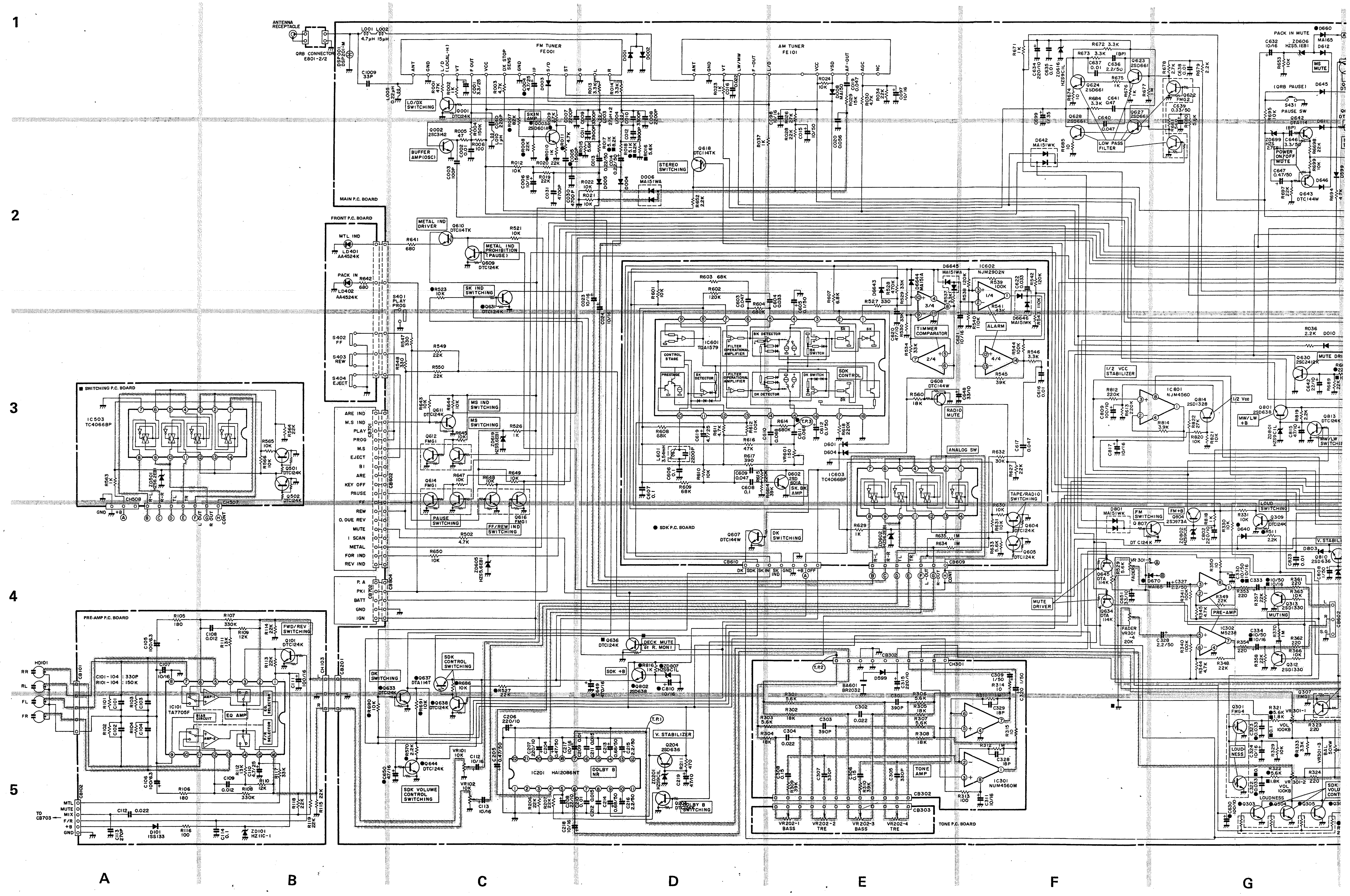
1	0
2	6.9
3	6.9
4	6.9
5	14.1
6	13.6
7	1.2
8	1.3

Schematic Diagram

(7284M/L Model only)

NOTE: ● **7284M Model Only,**
■ **7284L Model Only,**
Others Common

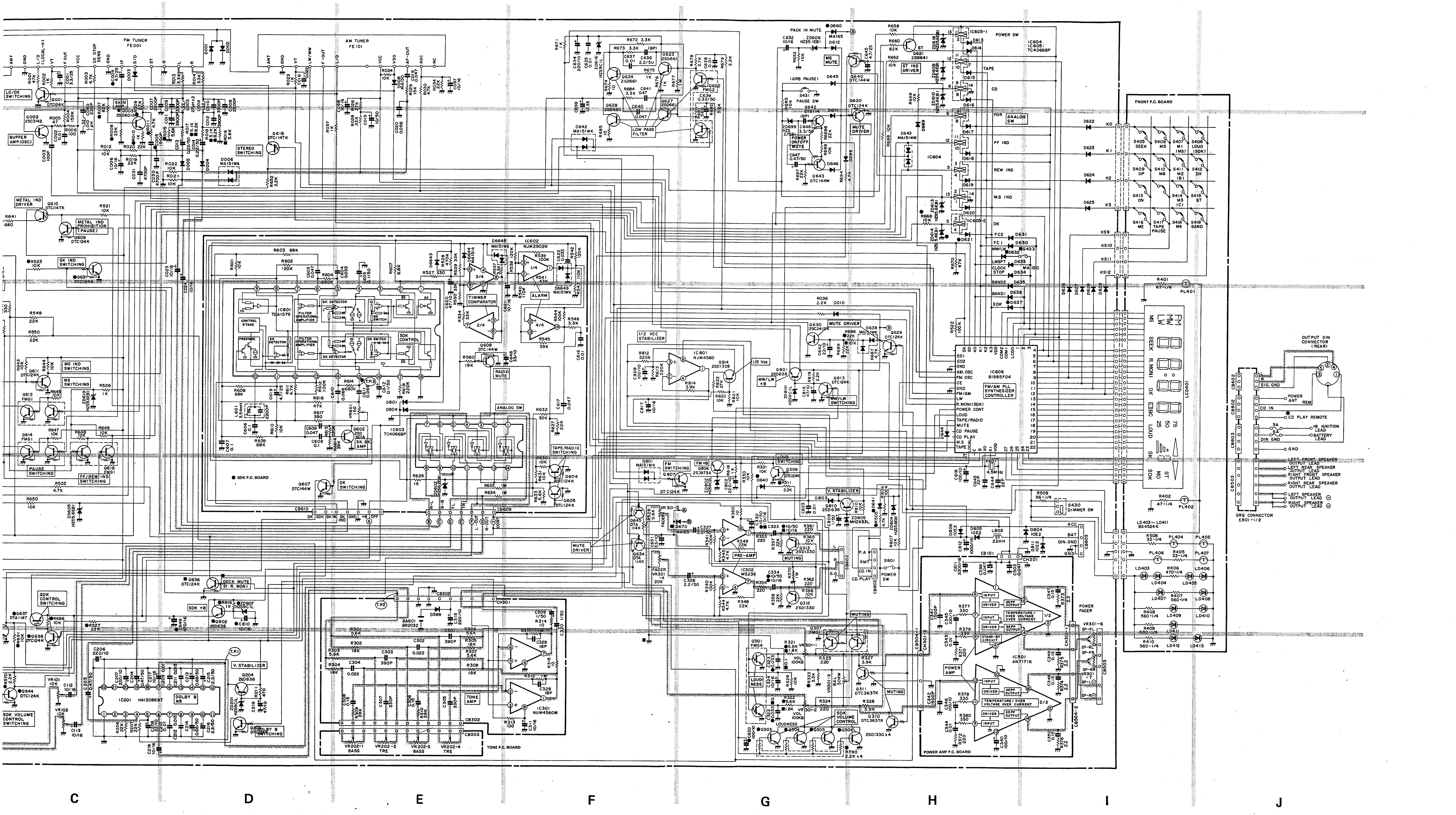
ICs	IC503 IC101	IC201	IC601	IC603	IC602 IC301	IC801 IC302
Transistors	Q501,502	Q001,002 Q610,609,631,611,612,614,616,633,637,638,644	Q618 Q638,802,204,203,607,602		Q608,604,605	Q624,623,622,628,627,634,635,807,310,311,804,814,3-309,801 Q301–307



1
2
3
4
5
A
B
C
D
E
F
G
ANTENNA RECEPTACLE
QRB CONNECTOR E801-2/2
FM TUNER FE001
AM TUNER FE101
MAIN P.C. BOARD
FRONT P.C. BOARD
SWITCHING P.C. BOARD
PRE-AMP P.C. BOARD
SDK P.C. BOARD
TONE P.C. BOARD
LO/DX SWITCHING
BUFFER AMP(OSC)
STEREO SWITCHING
METAL IND DRIVER
METAL IND PROHIBITION (PAUSE)
SK IND SWITCHING
MS IND SWITCHING
MS SWITCHING
PAUSE SWITCHING
FF/REW IND SWITCHING
TIMMER COMPARATOR
ALARM
RADIO MUTE
ANALOG SW
TAPE/RADIO SWITCHING
DK SWITCHING
SK BK AMP
DECK MUTE BY R. MONI
SDK +B
SDK CONTROL SWITCHING
SDK VOLUME CONTROL SWITCHING
DOLBY B NR
DOLBY B SWITCHING
V. STABILIZER
TONE AMP
LOW PASS FILTER
MUTE
POWER ON/OFF MUTE
1/2 VCC STABILIZER
FM SWITCHING
FM+B
MUTE DRIVER
PRE-AMP
MUTING
LOUD SWITCHING
LOUDNESS
FWD/REV SWITCHING
EQ AMP
BIAS CIRCUIT
SELECTOR
IC503 TC4066BP
IC101 TA7705F
IC201 HA12086NT
IC601 TDA1579
IC602 NJM2902N
IC603 TC4066BP
IC801 NJM4560
IC301 NJM4560M
IC302 M5238
S401 PLAY PROG
S402 FF
S403 REW
S404 EJECT
VR202-1 BASS
VR202-2 TRE
VR202-3 BASS
VR202-4 TRE
VR301 FADER
MTL IND
PACK IN
LD401 AA4524K
LD402 AA4524K
RR
RL
FL
FR

IC201 IC601 IC603 IC602 IC301 IC801 IC302 IC501

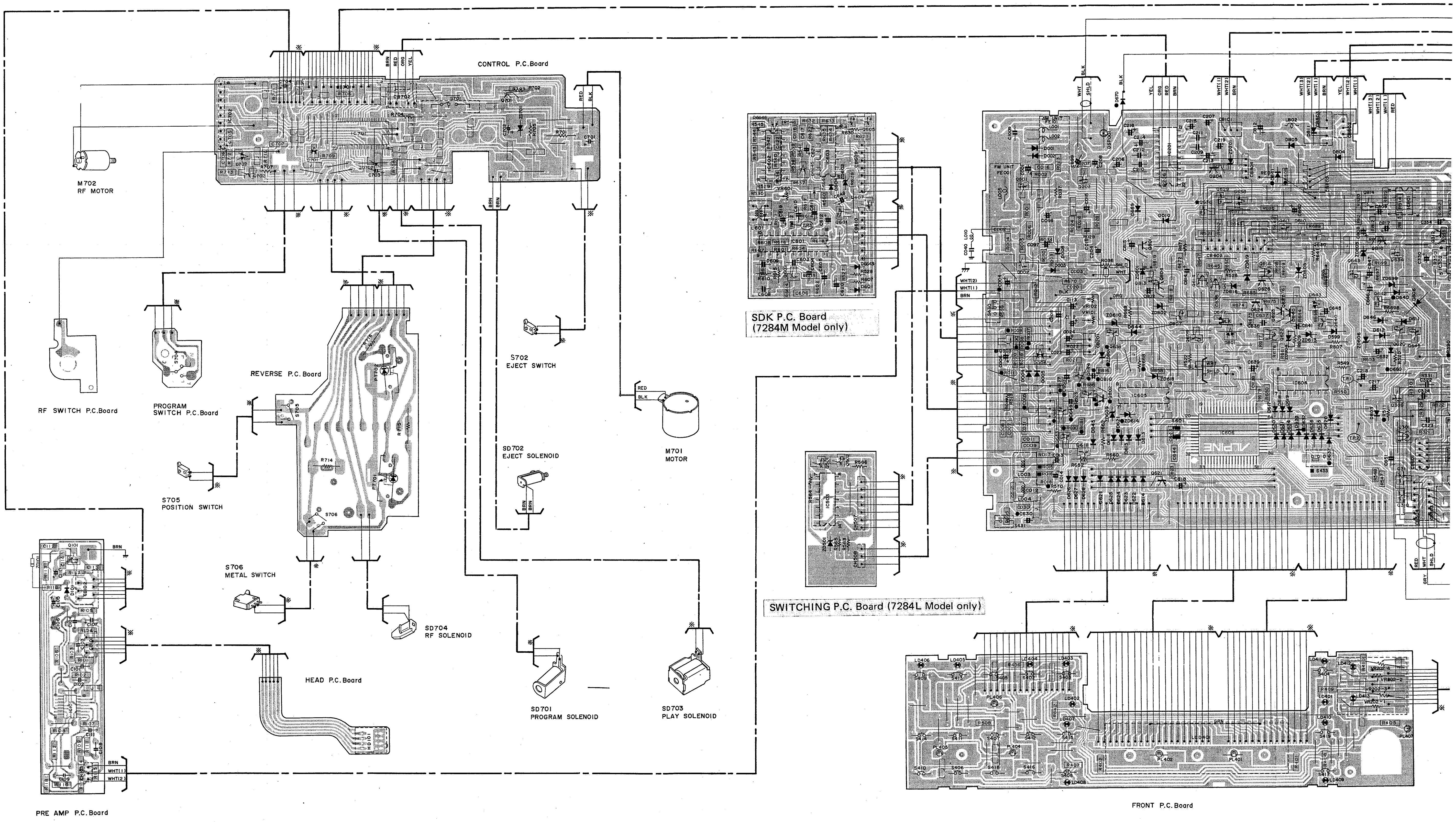
Q001,002
31,611,612,614,616,633,637,638,644 Q618
Q638,802,204,203,607,602
Q608,604,605
Q624,623,622,628,627,634,635,807,310,311,804,814,3-309,801,312,313,630,813,629
Q301–307

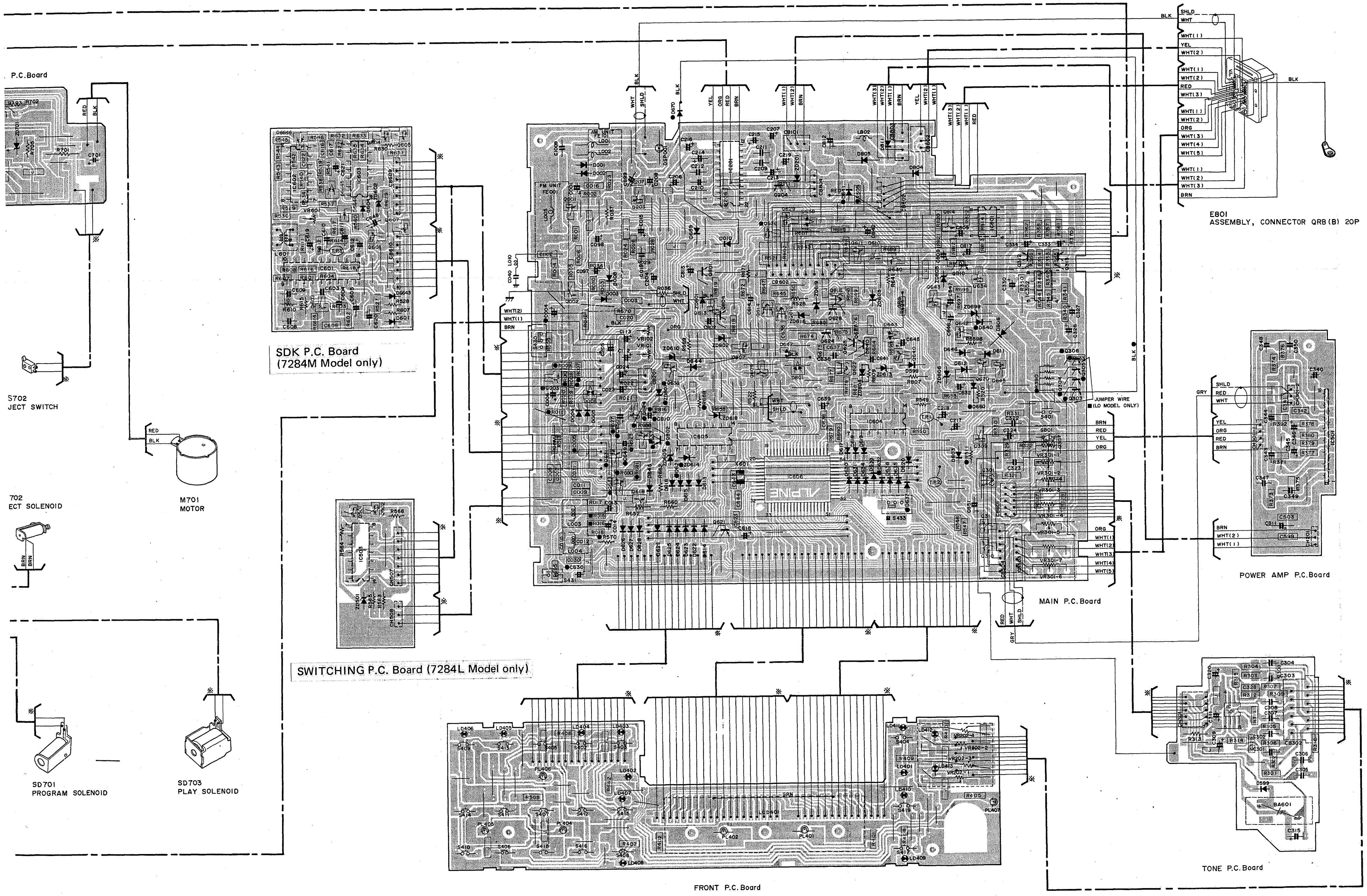


FM TUNER FE001
LO/DX SWITCHING
BUFFER AMP(OSC)
SKIN AMP
STEREO SWITCHING
AM TUNER FE101
LOW PASS FILTER
PACK IN MUTE
MS MUTE
ST IND DRIVER
(QRB PAUSE)
PAUSE SW
POWER ON/OFF MUTE
MUTE DRIVER
POWER SW
IC604 IC605: TC4066BP
TAPE
CD
FOR
ANALOG SW
FF IND
REW IND
M.S IND
FRONT P.C. BOARD
METAL IND DRIVER
METAL IND PROHIBITION (PAUSE)
SK IND SWITCHING
MS IND SWITCHING
MS SWITCHING
PAUSE SWITCHING
FF/REW IND SWITCHING
IC601 TDA1579
IC602 NJM2902N
TIMMER COMPARATOR
ALARM
RADIO MUTE
ANALOG SW
IC603 TC4066BP
SK. BK AMP
TAPE/RADIO SWITCHING
DK SWITCHING
SDK P.C. BOARD
1/2 VCC STABILIZER
IC801 NJM4560
MW/LW +B
MW/LW SWITCHING
IC606 BI985F04 FM/AM PLL SYNTHESIZER CONTROLLER
FM SWITCHING
LOUD SWITCHING
V. STABILIZER
S430 DIMMER SW
OUTPUT DIN CONNECTOR (REAR)
POWER ANT
CD PLAY REMOTE
+B IGNITION LEAD
BATTERY LEAD
GND
LEFT FRONT SPEAKER OUTPUT LEAD
LEFT REAR SPEAKER OUTPUT LEAD
RIGHT FRONT SPEAKER OUTPUT LEAD
RIGHT REAR SPEAKER OUTPUT LEAD
QRB CONNECTOR E801-1/2
MUTE DRIVER
DECK MUTE ST R. MONI
SDK +B
SDK CONTROL SWITCHING
SDK VOLUME CONTROL SWITCHING
IC201 HA12086NT
DOLBY B NR
V. STABILIZER
DOLBY B SWITCHING
TONE AMP
IC301 NUM4560M
TONE P.C. BOARD
PRE-AMP
IC302 M5236
MUTING
LOUDNESS
SDK VOLUME CONTROL
POWER AMP
IC501 AN7171K
POWER AMP P.C. BOARD
POWER FADER
C
D
E
F
G
H
I
J

Wiring Diagram and Parts Layout on P.C. Board

(7284M/L Model only)


CONTROL P.C.Board
M702
RF MOTOR
RF SWITCH P.C.Board
PROGRAM SWITCH P.C.Board
REVERSE P.C.Board
S702
EJECT SWITCH
S705
POSITION SWITCH
SD702
EJECT SOLENOID
M701
MOTOR
S706
METAL SWITCH
SD704
RF SOLENOID
HEAD P.C.Board
SD701
PROGRAM SOLENOID
SD703
PLAY SOLENOID
PRE AMP P.C.Board
SDK P.C. Board
(7284M Model only)
SWITCHING P.C. Board (7284L Model only)
FRONT P.C.Board
ALPINE
BRN
RED
ORG
YEL
BLK
WHT
SHLD
WHT(1)
WHT(2)
WHT(3)
GRY
GRN
FM UNIT
IC606
IC605
IC604


P.C.Board
S702
JECT SWITCH
702
ECT SOLENOID
M701
MOTOR
SD701
PROGRAM SOLENOID
SD703
PLAY SOLENOID
SDK P.C. Board
(7284M Model only)
SWITCHING P.C. Board (7284L Model only)
MAIN P.C.Board
JUMPER WIRE
(LO MODEL ONLY)
FRONT P.C.Board
POWER AMP P.C.Board
TONE P.C.Board
E801
ASSEMBLY, CONNECTOR QRB(B) 20P
ALPINE
SHLD
BLK
WHT
YEL
ORG
RED
BRN
GRY
WHT(1)
WHT(2)
WHT(3)
WHT(4)
WHT(5)
※

Schematic Diagram

(7284E Model only)

ICs	IC101	IC602	IC201	IC601	IC202	I
Transistors	Q001,004	Q101,002,003 Q615,603	Q602,601 Q619,620	Q201	Q204 Q616,609	Q610–614 Q618	Q623,624	Q30

NOTES:
1. Unless otherwise specified rating of diodes are 1SS133 or SS176.
2. Diode Matrix
   D612 is OFF
   D613 is ON
   D609,610 are on
4. MEASURING CONDITIONS
- ● Power Supply : 14V DC
- ● Measuring Meter : Digital Mult Voltmeter
- ● Measuring Point : Between Ground
- ● Conditions : AM.....999kHz
  FM.....98.1MHz
  Tape...Blank Tape
  (Play)

	B	C	E	
Q001	0	7.6	0	
Q002	0	14.2	0	
Q003	0	0	0	
Q004	0.7	8.2	0	
Q101	0.9	12.9	0	
Q201	9.1	14.2	8.5	
Q204	4.5	0	0	
Q301	0/5.5	0	0	ON/OFF
Q302	0/5.5	0	0	ON/OFF
Q303	0	0	0	
Q304	0	0	0	
Q305	0	0	0	
Q306	0	0	0	
Q501	0	0	0	
Q502	0	0	0	
Q601	1.2	9.3	0.6	
Q602	0.6	3.3	0	
Q603	12.7/0	14.2	12.1/0	ON/OFF
Q604	0.7/0	0/13.4	0	ON/OFF
Q605	2.2/4.8	-	-	ON/OFF
Q606	2.5/5.9	-	-	ON/OFF
Q607	2.5/5.9	-	-	ON/OFF
Q608	2.5/12.0	-	-	ON/OFF
Q609	0/4.6	0/12.8	0	ON/OFF
Q610	4.4/0	0/9.0	0	ON/OFF
Q611	0.7/0	0/13.5	0	ON/OFF
Q612	0/13.5	6.7/0	6.7/0	ON/OFF
Q613	13.5	0	13.5	
Q614	0	6.7	0	
Q615				
Q616	4.6/0	0/9.9	0	ON/OFF
Q617	0/4.6	0.7/0	0	ON/OFF
Q618	5.9	5.3	13.5	
Q619	0	6.1	0	
Q620	4.6	0	0	
Q623	14.2/0	0/13.8	0	ON/OFF
Q624	0	12.8	0	
Q801	13.4	14.1	14.2	
Q802	4.4	0	0	
Q803	9.4/0	14.1	8.8/0	FM/AM
Q804	0/8.6	14.1	0/8.0	FM/AM
Q805	0/4.6	9.4/0	0	FM/AM
Q806	8.8/0	0/8.6	0	FM/AM
Q807	7.1	14.3	6.8	

IC101

1	12.9
2	3.1
3	12.9
4	0
5	2.9
6	0
7	2.9
8	0
9	2.9
10	0
11	2.9
12	0
13	2.9
14	0
15	12.7
16	3.1

IC202

1	0
2	4.1
3	1.0
4	4.2
5	1.2
6	4.2
7	4.2
8	4.2
9	0
10	0
11	4.1
12	4.1
13	0
14	0
15	4.2
16	4.2
17	4.2
18	0
19	4.2
20	4.2
21	4.2
22	8.4

IC501

1	14.2
2	6.9
3	0
4	6.9
5	0
6	0
7	1.3
8	1.3
9	1.3
10	0
11	1.3
12	0
13	13.8
14	0
15	0
16	6.9

IC201

	FM	AM	TAPE
1	0	0	3.1
2	0	0	3.1
3	1.6	0.7	3.0
4	0	0.7	0
5	1.6	0	0
6	0	0	0
7	0	0	0
8	0	0	0
9	0	4.6	0
10	4.4	4.5	0
11	0	0.7	0
12	0	0	3.1
13	1.6	0.7	3.0
14	1.6	0	0
15	0	0	3.1
16	4.8	4.8	4.8

IC301

1	6.1
2	6.2
3	6.2
4	0
5	6.2
6	6.2
7	6.1
8	13.7

IC602

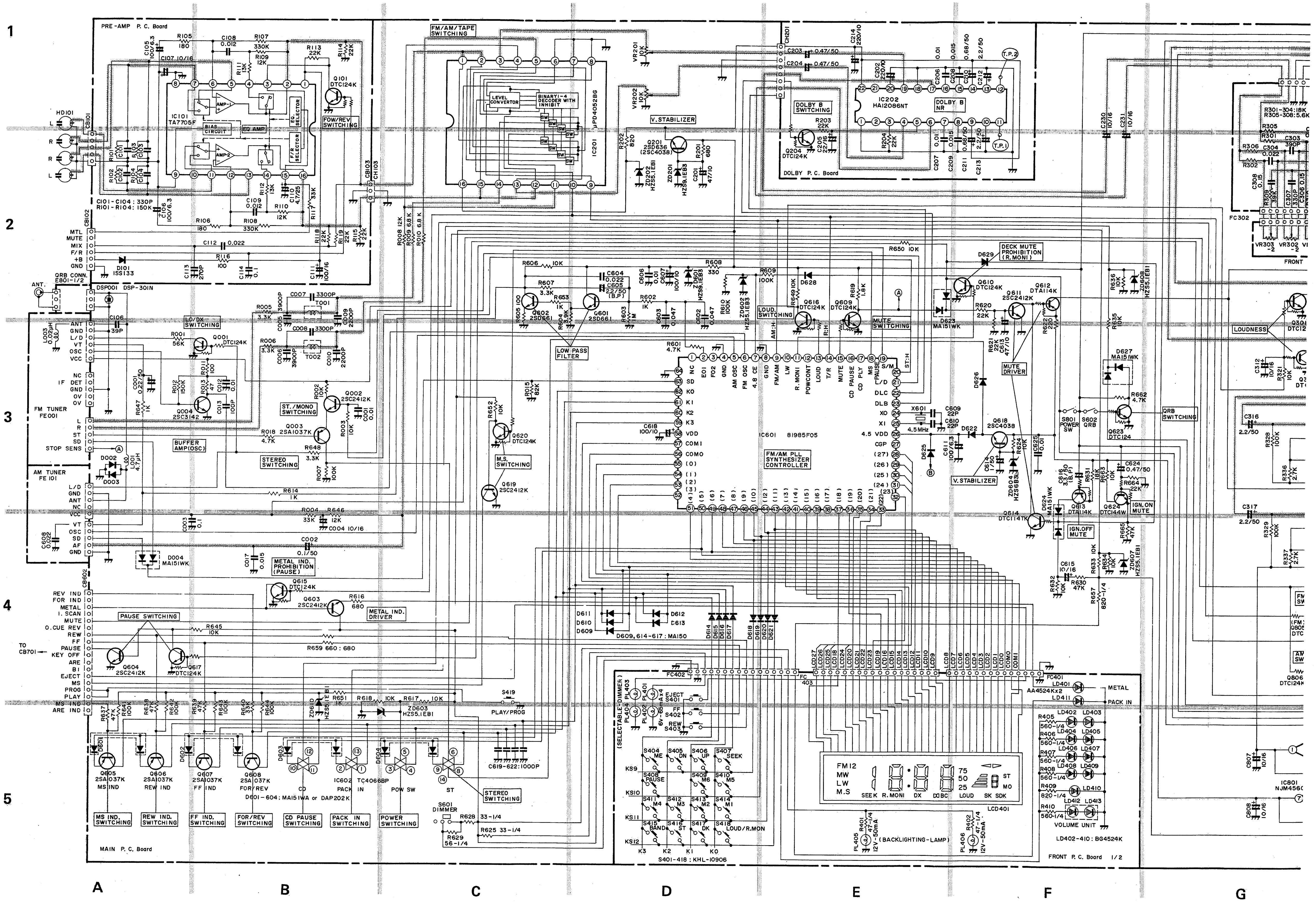
	ON	OFF
1	-	-
2	-	-
3	-	-
4	-	-
5	4.2	0
6	3.9	0
7	0	0
8	-	-
9	-	-
10	-	-
11	-	-
12	4.1	0
13	4.2	0
14	5.1	5.1

IC302

1	6.8
2	6.8
3	6.7
4	0
5	6.7
6	6.8
7	6.8
8	14.0

IC801

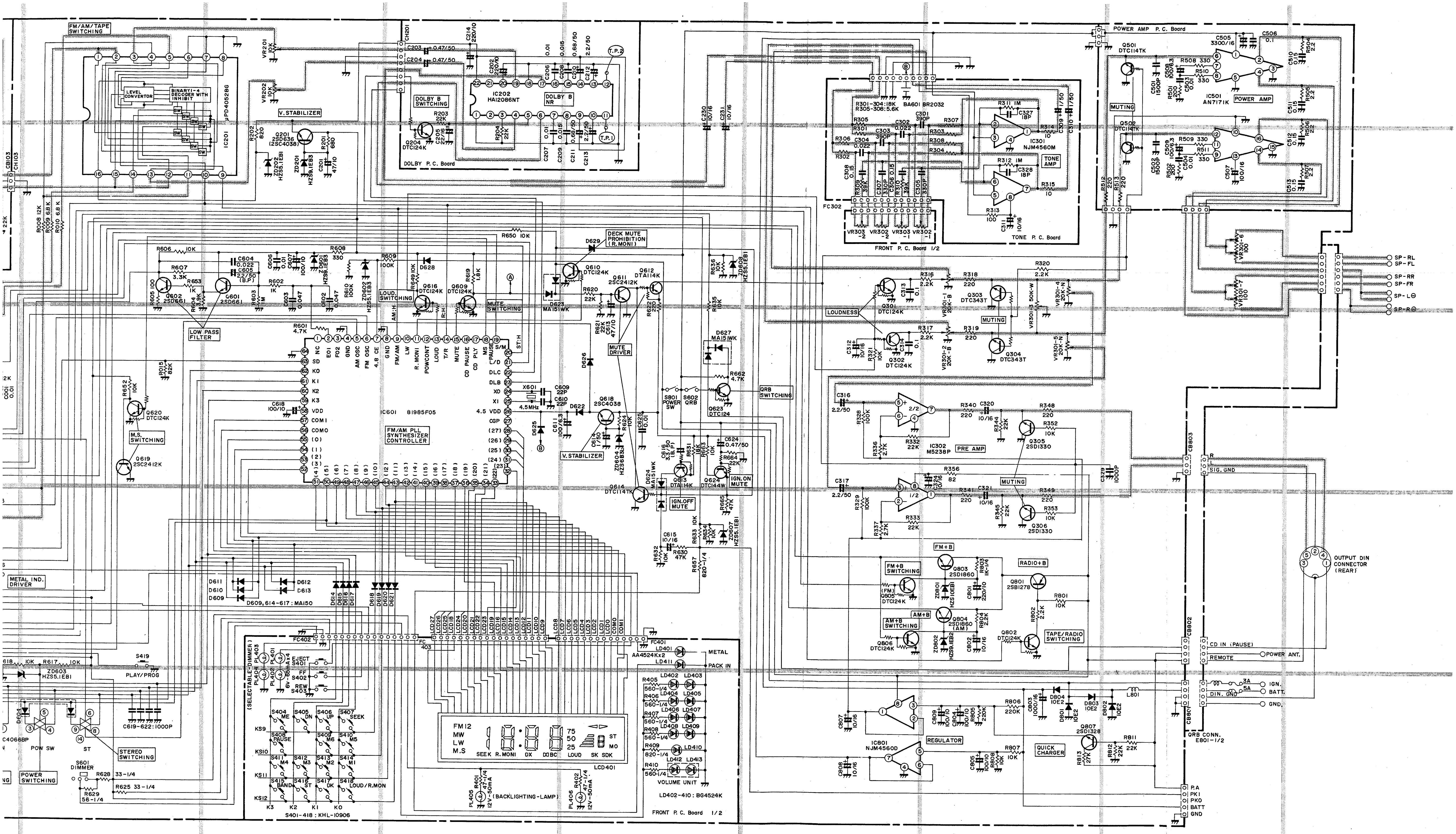
1	6.8
2	6.8
3	6.8
4	0
5	5.0
6	5.0
7	5.0
8	14.2


1
2
3
4
5
A
B
C
D
E
F
G
PRE-AMP P. C. Board
IC101 TA7705F
AMP-1
AMP-2
BIAS CIRCUIT
EQ AMP
EQ SELECTOR
F/R SELECTOR
FOW/REV SWITCHING
Q101 DTC124K
HD101
CB101
CB102
CB103
CH103
C101–C104 : 330P
R101–R104 : 150K
FM/AM/TAPE SWITCHING
LEVEL CONVERTOR
BINARY 1–4 DECODER WITH INHIBIT
IC201 μPD4052BC
V.STABILIZER
Q201 2SD636 (2SC4038)
ZD201 HZ9.1EB3
ZD202 HZS5.1EB1
CH201
DOLBY B SWITCHING
DOLBY B NR
IC202 HA12086NT
Q204 DTC124K
DOLBY P. C. Board
T.P.1
T.P.2
MTL
MUTE
MIX
F/R
+B
GND
D101 1SS133
QRB CONN. E801-1/2
ANT.
DSP001 DSP-301N
FM TUNER FE001
AM TUNER FE 101
LO/DX SWITCHING
Q001 DTC124K
Q004 2SC3142
BUFFER AMP(OSC)
ST./MONO SWITCHING
Q002 2SC2412K
Q003 2SA1037K
STEREO SWITCHING
T001
T002
D004 MA151WK
METAL IND. PROHIBITION (PAUSE)
Q615 DTC124K
Q603 2SC2412K
METAL IND. DRIVER
PAUSE SWITCHING
Q604 2SC2412K
Q617 DTC124K
TO CB701
REV IND
FOR IND
METAL
I. SCAN
MUTE
O.CUE REV
REW
FF
PAUSE
KEY OFF
ARE
BI
EJECT
MS
PROG
PLAY
MS IND
ARE IND
Q605 2SA1037K
Q606 2SA1037K
Q607 2SA1037K
Q608 2SA1037K
MS IND
REW IND
FF IND
FOR/REV
CD
PACK IN
POW SW
ST
D601–604 : MA151WA or DAP202K
IC602 TC4066BP
MS IND. SWITCHING
REW IND. SWITCHING
FF IND. SWITCHING
FOR/REV SWITCHING
CD PAUSE SWITCHING
PACK IN SWITCHING
POWER SWITCHING
STEREO SWITCHING
S419 PLAY/PROG
C619–622 : 1000P
S601 DIMMER
ZD603 HZS5.1EB1
MAIN P. C. Board
LOW PASS FILTER
Q602 2SD661
Q601 2SD661
Q620 DTC124K
M.S. SWITCHING
Q619 2SC2412K
LOUD. SWITCHING
Q616 DTC124K
Q609 DTC124K
MUTE SWITCHING
IC601 81985F05
FM/AM PLL SYNTHESIZER CONTROLLER
X601 4.5MHz
D609,614–617 : MA150
DECK MUTE PROHIBITION (R. MONI)
Q610 DTC124K
Q611 2SC2412K
Q612 DTA114K
D623 MA151WK
MUTE DRIVER
Q618 2SC4038
V.STABILIZER
ZD604 HZS6B3
Q614 DTC114TK
Q613 DTA114K
Q624 DTC144W
IGN.ON MUTE
IGN.OFF MUTE
D627 MA151WK
S801 POWER SW
S602 QRB
Q623 DTC124
QRB SWITCHING
LOUDNESS
Q301 DTC12
FC302
VR303
VR302
FRONT
FC401
FC402
FC403
(SELECTABLE DIMMER)
PL403
PL401
PL404
PL402
S401 EJECT
S402 FF
S403 REW
S404 ME
S405 DN
S406 UP
S407 SEEK
S408 PAUSE
S409 M6
S410 M5
S411 M4
S412 M3
S413 M2
S414 M1
S415 BAND
S416 ST
S417 DX
S418 LOUD/R.MON
KS9
KS10
KS11
KS12
K3
K2
K1
K0
S401–418 : KHL-10906
LCD401
FM 1 2
MW
LW
M.S
SEEK
R.MONI
DX
LOUD
SK SDK
ST
MO
(BACKLIGHTING-LAMP)
PL405 R401 47-1/4 12V-50mA
PL406 R402 47-1/4 12V-50mA
LD401
LD411
METAL
PACK IN
AA4524Kx2
VOLUME UNIT
LD402–410 : BG4524K
FRONT P. C. Board 1/2
IC801 NJM456
Q806 DTC124K
Q305 2SC

C602 IC201 IC601 IC202 IC801 IC302 IC301 IC501

)2,003 Q602,601 Q201 Q204 Q610–614 Q301,302 Q303–306 Q501,502

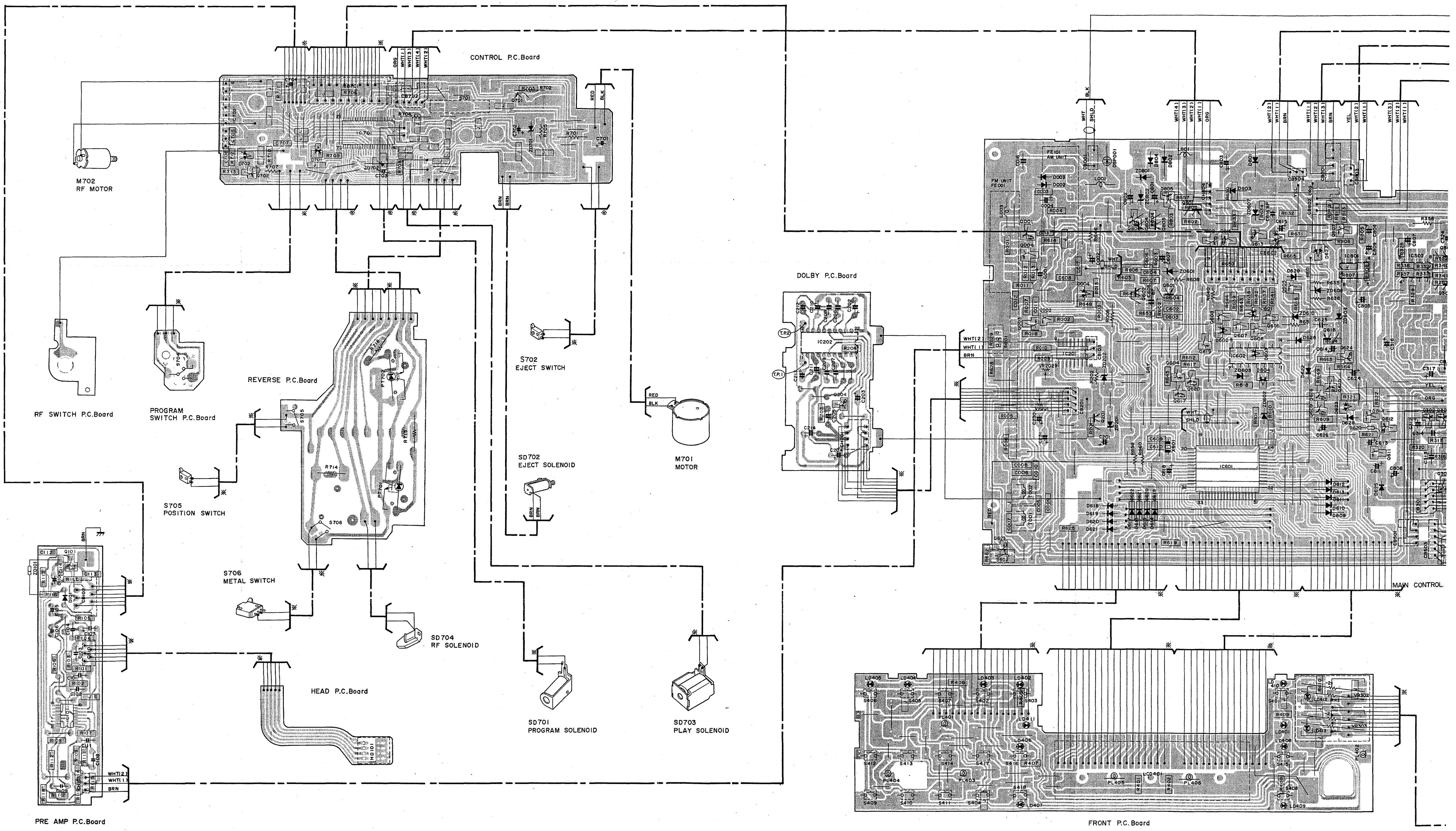
)3 Q619,620 Q616,609 Q618 Q623,624 Q801–806 Q807

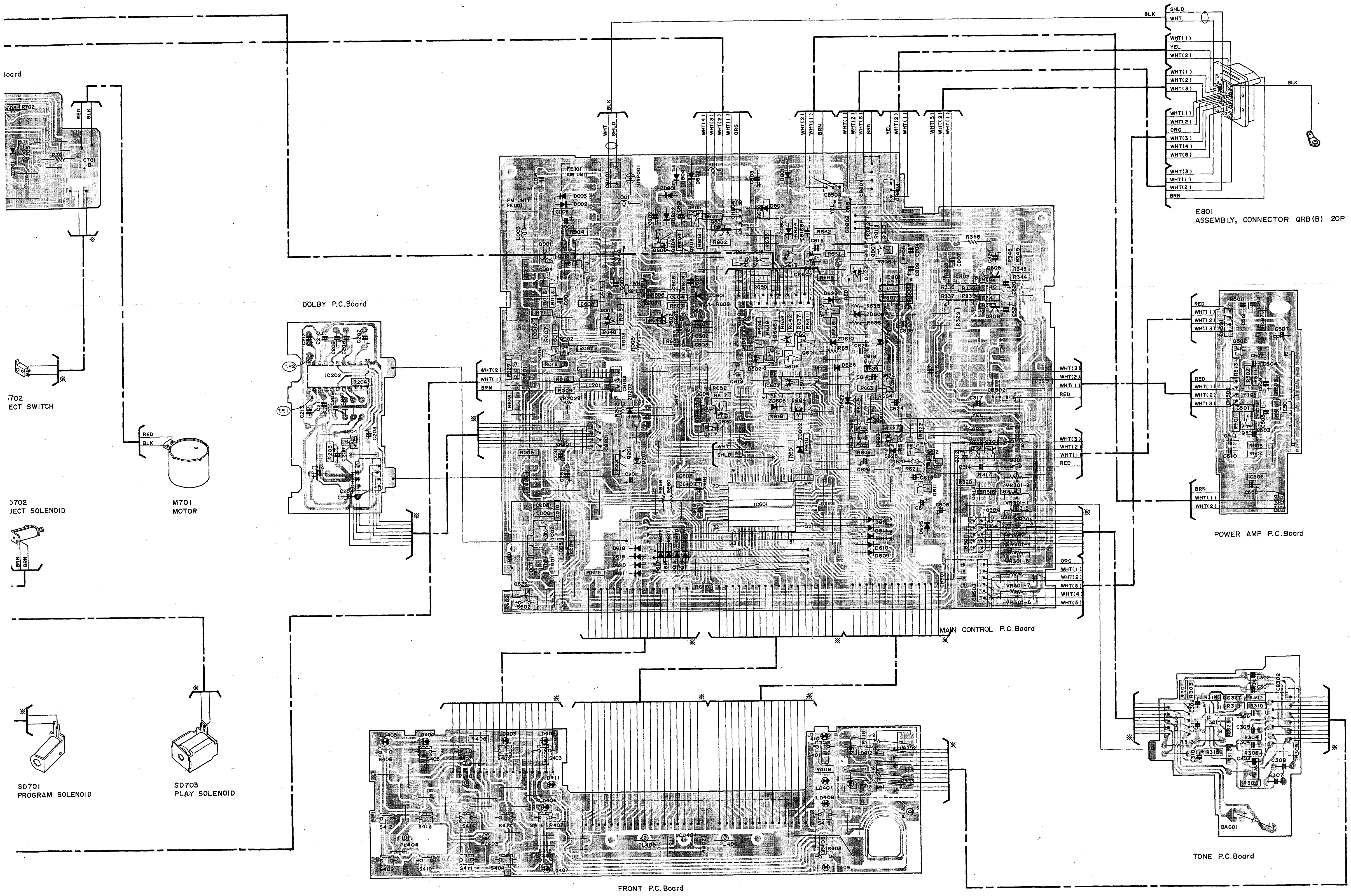

FM/AM/TAPE SWITCHING
LEVEL CONVERTOR
BINARY1-4 DECODER WITH INHIBIT
μPD4052BG
IC201
V. STABILIZER
Q201 2SD636 (2SC4038)
DOLBY B SWITCHING
IC202 HA12086NT
DOLBY B NR
DOLBY P. C. Board
Q204 DTC124K
T.P.1
T.P.2
LOW PASS FILTER
Q602 2SD661
Q601 2SD661
M.S. SWITCHING
Q620 DTC124K
Q619 2SC2412K
LOUD. SWITCHING
Q616 DTC124K
Q609 DTC124K
MUTE SWITCHING
DECK MUTE PROHIBITION (R. MONI)
Q610 DTC124K
Q611 2SC2412K
Q612 DTA114K
MUTE DRIVER
IC601 81965F05
FM/AM PLL SYNTHESIZER CONTROLLER
X601 4.5MHz
Q618 2SC4038
V. STABILIZER
Q614 DTC114TK
Q613 DTA114K
IGN.OFF MUTE
Q624 DTC144W
IGN. ON MUTE
S801 POWER SW
S602 QRB
Q623 DTC124
QRB SWITCHING
METAL IND. DRIVER
D609,614-617 : MA150
STEREO SWITCHING
POWER SWITCHING
S601 DIMMER
POW SW
ST
C619-622 : 1000P
PLAY/PROG
S419
(SELECTABLE-DIMMER)
EJECT
FF
REW
S401
S402
S403
S404 ME
S405 DN
S406 UP
S407 SEEK
S408 PAUSE
S409 M6
S410 M5
S411 M4
S412 M3
S413 M2
S414 M1
S415 BAND
S416 ST
S417 DX
S418 LOUD/R.MON
KS9
KS10
KS11
KS12
K3
K2
K1
K0
S401-418 : KHL-10906
FC402
FC401
FC403
LCD401
FM12
MW
LW
M.S
SEEK
R. MONI
DX
DOBC
LOUD
SK SDK
ST
MO
(BACKLIGHTING-LAMP)
PL405
PL406
AA4524Kx2
LD401
LD411
METAL
PACK IN
VOLUME UNIT
LD402-410 : BG4524K
FRONT P.C. Board 1/2
R301-304 : 18K
R305-308 : 5.6K
BA601 BR2032
IC301 NJM4560M
TONE AMP
TONE P. C. Board
FC302
VR303 -2
VR302 -2
VR303 -1
VR302 -1
FRONT P.C. Board 1/2
LOUDNESS
Q301 DTC124K
Q302 DTC124K
Q303 DTC343T
Q304 DTC343T
MUTING
VR301-1 20K-B
VR301-2 20K-B
VR301-3 50K-W
VR301-4 20K-N
VR301-5 20K-N
VR301-6 100
VR301-7 100
IC302 M5238P
PRE AMP
Q305 2SD1330
Q306 2SD1330
MUTING
FM+B
FM+B SWITCHING
Q805 DTC124K
Q803 2SD1860
RADIO+B
Q801 2SB1278
AM+B
AM+B SWITCHING
Q806 DTC124K
Q804 2SD1860 (AM)
Q802 DTC124K
TAPE/RADIO SWITCHING
IC801 NJM4560D
REGULATOR
QUICK CHARGER
Q807 2SD1328
L801
POWER AMP P. C. Board
Q501 DTC114TK
Q502 DTC114TK
MUTING
IC501 AN7171K
POWER AMP
SP-RL
SP-FL
SP-RR
SP-FR
SP-L⊖
SP-R⊖
OUTPUT DIN CONNECTOR (REAR)
CB803
R
SIG. GND
CB802
CD IN (PAUSE)
REMOTE
POWER ANT.
CB801
3A
5A
IGN.
BATT.
DIN. GND
GND.
QRB CONN. E801-1/2
P.A
PKI
PKO
BATT
GND

C D E F G H I J

Wiring Diagram and Parts Layout on P.C. Board

(7284E Model only)

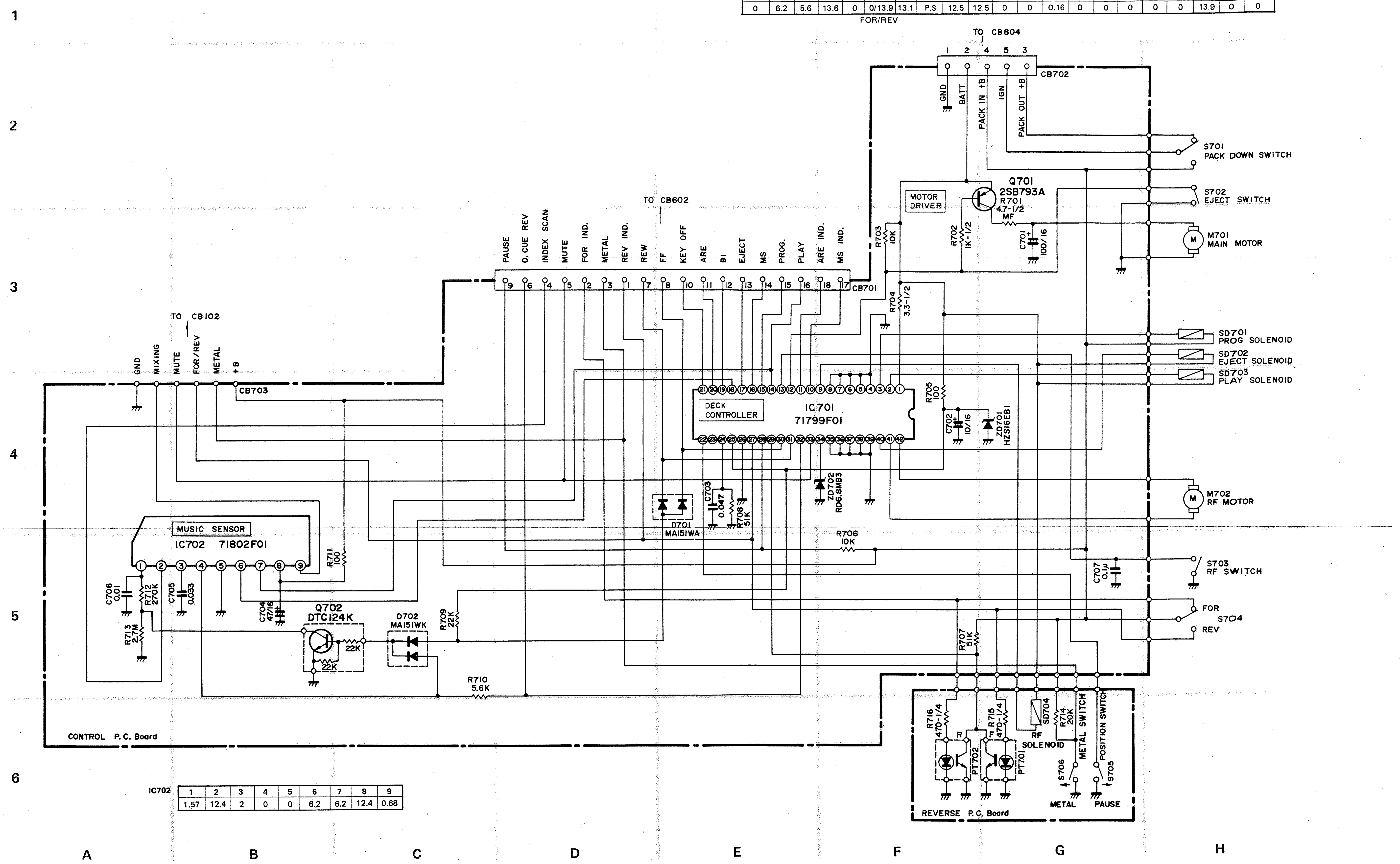

CONTROL P.C.Board
M702
RF MOTOR
RF SWITCH P.C.Board
PROGRAM
SWITCH P.C.Board
REVERSE P.C.Board
S702
EJECT SWITCH
SD702
EJECT SOLENOID
M701
MOTOR
DOLBY P.C.Board
IC202
S705
POSITION SWITCH
S706
METAL SWITCH
SD704
RF SOLENOID
HEAD P.C.Board
SD701
PROGRAM SOLENOID
SD703
PLAY SOLENOID
PRE AMP P.C.Board
FRONT P.C.Board
MAIN CONTROL
FM UNIT
FE001
FE101
AM UNIT
IC601
RED
BLK
BRN
WHT(1)
WHT(2)
WHT(3)
WHT(4)
ORG
YEL
SHLD


Board
702
ECT SWITCH
702
JECT SOLENOID
M701
MOTOR
SD701
PROGRAM SOLENOID
SD703
PLAY SOLENOID
DOLBY P.C.Board
MAIN CONTROL P.C.Board
FRONT P.C.Board
E801
ASSEMBLY, CONNECTOR QRB(B) 20P
POWER AMP P.C.Board
TONE P.C.Board
FM UNIT FE001
FE101 AM UNIT
IC601
IC201
IC202
IC602
BA601
SHLD
WHT
BLK
RED
BRN
YEL
ORG
WHT(1)
WHT(2)
WHT(3)
WHT(4)
WHT(5)

Schematic Diagram (Tape Mechanism)

IC701

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
13.9	13.9	13.9	0	0	0	0	0	13.9	12.3	12.3	0.1	0	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
22	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**
0	6.2	5.6	13.6	0	0/13.9 FOR/REV	13.1	P.S	12.5	12.5	0	0	0.16	0	0	0	0	0	13.9	0	0

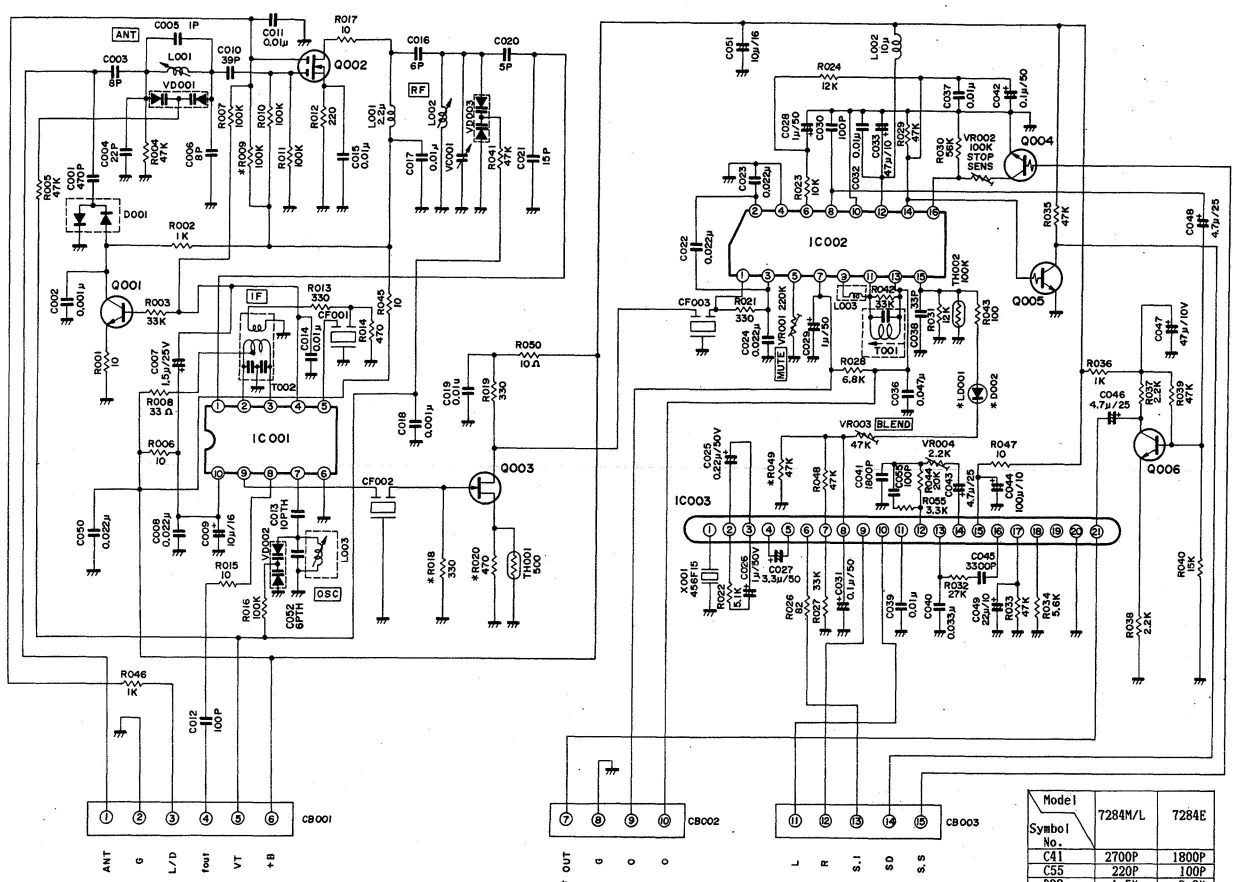

1
2
3
4
5
6
A
B
C
D
E
F
G
H
TO CB804
1
2
4
5
3
CB702
GND
BATT
PACK IN +B
IGN
PACK OUT +B
S701
PACK DOWN SWITCH
S702
EJECT SWITCH
M701
MAIN MOTOR
M
MOTOR DRIVER
Q701
2SB793A
R701
4.7-1/2
MF
R702
1K-1/2
C701
100/16
R703
10K
R704
3.3-1/2
TO CB602
PAUSE
O.CUE REV
INDEX SCAN
MUTE
FOR IND.
METAL
REV IND.
REW
FF
KEY OFF
ARE
BI
EJECT
MS
PROG.
PLAY
ARE IND.
MS IND.
CB701
SD701
PROG SOLENOID
SD702
EJECT SOLENOID
SD703
PLAY SOLENOID
TO CB102
GND
MIXING
MUTE
FOR/REV
METAL
+B
CB703
DECK CONTROLLER
IC701
71799F01
R705
100
C702
10/16
ZD701
HZS16EB1
M702
RF MOTOR
C703
0.047
R708
51K
ZD702
RD6.8MB3
D701
MA151WA
MUSIC SENSOR
IC702 71802F01
R711
100
R706
10K
S703
RF SWITCH
C707
0.1μ
C706
0.01
R712
270K
C705
0.033
R713
2.7M
C704
47/16
Q702
DTC124K
22K
22K
D702
MA151WK
R709
22K
R710
5.6K
R707
51K
FOR
S704
REV
CONTROL P.C. Board
R716
470-1/4
R
R715
470-1/4
F
PT702
PT701
SD704
RF SOLENOID
R714
20K
METAL SWITCH
POSITION SWITCH
S706
S705
METAL
PAUSE
REVERSE P.C. Board

IC702

1	2	3	4	5	6	7	8	9
1.57	12.4	2	0	0	6.2	6.2	12.4	0.68

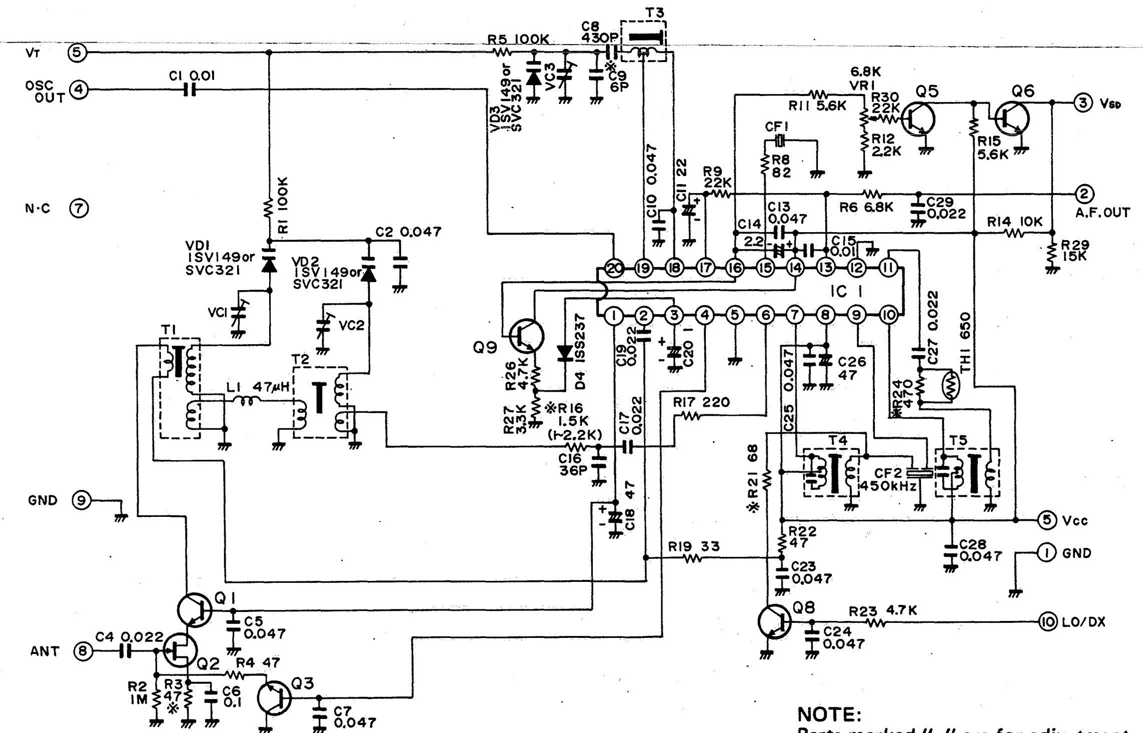
Tuner Schematic Diagram

- **FM TUNER**


ANT
RF
IF
OSC
IC001
IC002
IC003
Q001
Q002
Q003
Q004
Q005
Q006
CF001
CF002
CF003
MUTE
BLEND
VR002 100K STOP SENS
T001
T002
L003
D001
D002
LD001
X001 456KHz
CB001
CB002
CB003
ANT
G
L/D
fout
VT
+B
IF OUT
G
G
L
R
S.I
SD
S.S

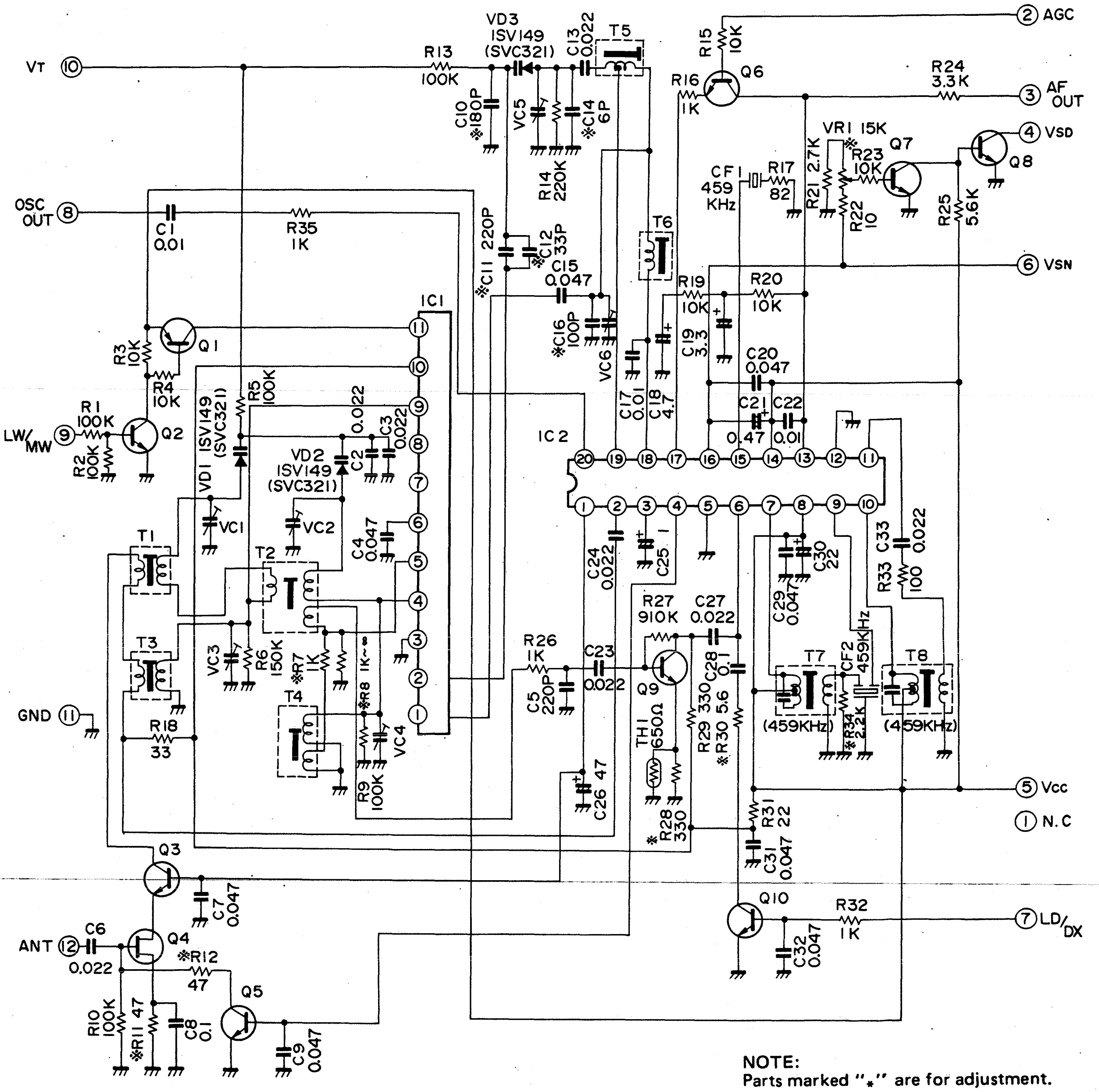
Model / Symbol No.	7284M/L	7284E
C41	2700P	1800P
C55	220P	100P
R38	1.5K	2.2K
R49	∗33K	∗47K
D002	×	○
LD001	∗○	∗×

- **AM TUNER** (7284E Model only)


VT ⑤
OSC OUT ④
N.C ⑦
GND ⑨
ANT ⑧
③ VSD
② A.F.OUT
⑤ Vcc
① GND
⑩ LO/DX
IC 1
Q1
Q2
Q3
Q5
Q6
Q8
Q9
T1
T2
T3
T4
T5
CF1
CF2 450kHz
VD1 1SV149or SVC321
VD2 1SV149or SVC321
VD3 1SV149or SVC321
L1 47μH
TH1 650

NOTE:
Parts marked "∗" are for adjustment.

- **AM TUNER** (7284M/L Model only)


VT ⑩
OSC OUT ⑧
LW/MW ⑨
GND ⑪
ANT ⑫
② AGC
③ AF OUT
④ VSD
⑥ VSN
⑤ Vcc
① N.C
⑦ LD/DX
IC1
IC2
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
Q9
Q10
T1
T2
T3
T4
T5
T6
T7 (459KHz)
T8 (459KHz)
CF1 459 KHz
CF2 459KHz
VD1 1SV149 (SVC321)
VD2 1SV149 (SVC321)
VD3 1SV149 (SVC321)
VR1 15K
TH1 650Ω

NOTE:
Parts marked "∗" are for adjustment.

(7284M/L Model only)

Resistors: Carbon resistors under 1/4 watts are not mentioned in the parts list, please confirm them by schematic diagram.

Abbreviation of Electrolytic Words

CP=CHIP	MO=METAL OXIDE FILM	CER=CERAMIC	POLY=POLYSTYROL	CONN=CONNECTOR
CF=CARBON FILM	MP=METAL PLATE	MYL=MYLAR	PP=POLYPROPYLENE	uF=microfarads
MF=METAL FILM	ELY=ELECTROLYTIC	TAN=TANTALUM	TRANS=TRANSFORMER	P=picofarads

Symbol No.	Part No.	Description		
Main P.C. Board				
ICs				
IC201	51T82309F01	HA12086NT		
IC302	51T80136F01	M5238P		
IC604	51T47739F01	TC4066BP		
IC605	51T47739F01	TC4066BP		
● IC606	51T81985F04	81985F04		
■ IC606	51T81985F04	81985F04		
■ or	51T81985F02	81985F02		
IC801	51T73718F02	NJM4560D		
Transistors				
Q001	48T62967F03	CP DTC124K		
Q002	48T82429F01	CP 2SC3142		
● Q003	48T52438F02	CP 2SD601A		
Q203	48T62967F03	CP DTC124K		
Q204	48S40627U07	2SD636		
Q301	48T73888F10	CP FMG4		
● Q303	48T57337F01	2SD1330		
● Q304	48T57337F01	2SD1330		
● Q305	48T57337F01	2SD1330		
● Q306	48T57337F01	2SD1330		
Q307	48T73888F08	CP FMG1		
Q309	48T62967F03	CP DTC124K		
Q310	48T62967F34	CP DTC363TK		
Q311	48T62967F34	CP DTC363TK		
Q312	48T57337F01	2SD1330		
Q313	48T57337F01	2SD1330		
Q609	48T62967F03	CP DTC124K		
Q610	48T62967F09	CP DTC114TK		
Q611	48T62967F03	CP DTC124K		
Q612	48T73888F08	CP FMG1		
Q614	48T73888F08	CP FMG1		
Q616	48T73888F08	CP FMG1		
Q618	48T62967F09	CP DTC114TK		
Q620	48T62967F03	CP DTC124K		
Q621	48S40591U01	2SB641		
Q622	48T73888F09	CP FMG2		
Q623	48T42182U01	2SD661		
Q624	48T42182U01	2SD661		
Q627	48T42182U01	2SD661		
Q628	48T42182U01	2SD661		
Q629	48T62967F03	CP DTC124K		
Q630	48T63417F01	CP 2SC2412K		
● Q631	48T62967F03	CP DTC124K		
● Q633	48T62967F03	CP DTC124K		
Q634	48T62966F02	CP DTA114		
■ Q636	48T62967F03	CP DTC124K		
● Q637	48T62966F09	CP DTA114T		
● Q638	48T62967F03	CP DTC124K		
Q640	48T62967F08	CP DTC144W		
Q642	48T62966F02	CP DTA114		
Q643	48T62967F08	CP DTC144W		
● Q644	48T62967F03	CP DTC124K		
Q645	48T62966F02	CP DTA114		
Q801	48S42455F03	2SD638		

Symbol No.	Part No.	Description		
Q804	48T52549F02	2SD973A		
Q807	48T62967F03	CP DTC124K		
Q810	48S40627U01	2SD636		
Q813	48T62967F03	CP DTC124K		
● Q814	48T63788F01	CP 2SD1328		
■ Q814	48T63788F04	CP 2SD1328		
Doides/Surge Protector				
D001	48T44813F01	MA165TA		
D002	48T44813F01	MA165TA		
D003	48T44813F01	MA165TA		
D004	48T44813F01	MA165TA		
D005	48T44813F01	MA165TA		
D006	48T52445F01	CP MA151WA		
D008	48T51582F01	MA150		
D010	48T44813F01	MA165TA		
D599	48T44813F01	MA165TA		
D611	48T44813F01	MA165TA		
D612	48T44813F01	MA165TA		
D613	48T44813F01	MA165TA		
D614	48T44813F01	MA165TA		
D615	48T44813F01	MA165TA		
D616	48T44813F01	MA165TA		
D617	48T44813F01	MA165TA		
D618	48T44813F01	MA165TA		
D619	48T44813F01	MA165TA		
D620	48T44813F01	MA165TA		
● D621	48T44813F01	MA165TA		
D622	48T44813F01	MA165TA		
D623	48T44813F01	MA165TA		
D624	48T44813F01	MA165TA		
D625	48T44813F01	MA165TA		
D626	48T44813F01	MA165TA		
D627	48T44813F01	MA165TA		
D628	48T44813F01	MA165TA		
D629	48T44813F01	MA165TA		
D630	48T44813F01	MA165TA		
D631	48T44813F01	MA165TA		
■ D632	48T44813F01	MA165TA		
D633	48T51582F01	MA150		
D634	48T44813F01	MA165TA		
D635	48T44813F01	MA165TA		
D636	48T44813F01	MA165TA		
● D637	48T44813F01	MA165TA		
D638	48T52446F01	CP MA151WK		
● D640	48T44813F01	MA165TA		
● D641	48T44813F01	MA165TA		
D642	48T52446F01	CP MA151WK		
D643	48T52446F01	CP MA151WK		
D644	48T44813F01	MA165TA		
D645	48T44813F01	MA165TA		
D646	48T44813F01	MA165TA		
● D660	48T44813F02	MA165		
● D670	48T44813F02	MA165		
D689	48T44813F01	MA165TA		
D801	48T52446F01	CP MA151WK		
D803	48T44813F01	MA165TA		

Electrical Parts List

(7284M/L Model only)

Resistors: Carbon resistors under 1/4 watts are not mentioned in the parts list, please confirm them by schematic diagram.

Abbreviation of Electrolytic Words

CP=CHIP
CF=CARBON FILM
MF=METAL FILM
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ELY=ELECTROLYTIC
CER=CERAMIC
MYL=MYLAR
TAN=TANTALUM
POLY=POLYSTYROL
PP=POLYPROPYLENE
TRANS=TRANSFORMER
CONN=CONNECTOR
uF=microfarads
P=picofarads

Symbol No.	Part No.	Description		
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ICs				
IC201	51T82309F01	HA12086NT		
IC302	51T80136F01	M5238P		
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IC605	51T47739F01	TC4066BP		
● IC606	51T81985F04	81985F04		
■ IC606	51T81985F04	81985F04		
■ or	51T81985F02	81985F02		
IC801	51T73718F02	NJM4560D		
Transistors				
Q001	48T62967F03	CP DTC124K		
Q002	48T82429F01	CP 2SC3142		
● Q003	48T52438F02	CP 2SD601A		
Q203	48T62967F03	CP DTC124K		
Q204	48S40627U07	2SD636		
Q301	48T73888F10	CP FMG4		
● Q303	48T57337F01	2SD1330		
● Q304	48T57337F01	2SD1330		
● Q305	48T57337F01	2SD1330		
● Q306	48T57337F01	2SD1330		
Q307	48T73888F08	CP FMG1		
Q309	48T62967F03	CP DTC124K		
Q310	48T62967F34	CP DTC363TK		
Q311	48T62967F34	CP DTC363TK		
Q312	48T57337F01	2SD1330		
Q313	48T57337F01	2SD1330		
Q609	48T62967F03	CP DTC124K		
Q610	48T62967F09	CP DTC114TK		
Q611	48T62967F03	CP DTC124K		
Q612	48T73888F08	CP FMG1		
Q614	48T73888F08	CP FMG1		
Q616	48T73888F08	CP FMG1		
Q618	48T62967F09	CP DTC114TK		
Q620	48T62967F03	CP DTC124K		
Q621	48S40591U01	2SB641		
Q622	48T73888F09	CP FMG2		
Q623	48T42182U01	2SD661		
Q624	48T42182U01	2SD661		
Q627	48T42182U01	2SD661		
Q628	48T42182U01	2SD661		
Q629	48T62967F03	CP DTC124K		
Q630	48T63417F01	CP 2SC2412K		
● Q631	48T62967F03	CP DTC124K		
● Q633	48T62967F03	CP DTC124K		
Q634	48T62966F02	CP DTA114		
■ Q636	48T62967F03	CP DTC124K		
● Q637	48T62966F09	CP DTA114T		
● Q638	48T62967F03	CP DTC124K		
Q640	48T62967F08	CP DTC144W		
Q642	48T62966F02	CP DTA114		
Q643	48T62967F08	CP DTC144W		
● Q644	48T62967F03	CP DTC124K		
Q645	48T62966F02	CP DTA114		
Q801	48S42455F03	2SD638		
● Q802	48S42455F03	2SD638		

Symbol No.	Part No.	Description		
Q804	48T52549F02	2SD973A		
Q807	48T62967F03	CP DTC124K		
Q810	48S40627U01	2SD636		
Q813	48T62967F03	CP DTC124K		
● Q814	48T63788F01	CP 2SD1328		
■ Q814	48T63788F04	CP 2SD1328		
Doides/Surge Protector				
D001	48T44813F01	MA165TA		
D002	48T44813F01	MA165TA		
D003	48T44813F01	MA165TA		
D004	48T44813F01	MA165TA		
D005	48T44813F01	MA165TA		
D006	48T52445F01	CP MA151WA		
D008	48T51582F01	MA150		
D010	48T44813F01	MA165TA		
D599	48T44813F01	MA165TA		
D611	48T44813F01	MA165TA		
D612	48T44813F01	MA165TA		
D613	48T44813F01	MA165TA		
D614	48T44813F01	MA165TA		
D615	48T44813F01	MA165TA		
D616	48T44813F01	MA165TA		
D617	48T44813F01	MA165TA		
D618	48T44813F01	MA165TA		
D619	48T44813F01	MA165TA		
D620	48T44813F01	MA165TA		
● D621	48T44813F01	MA165TA		
D622	48T44813F01	MA165TA		
D623	48T44813F01	MA165TA		
D624	48T44813F01	MA165TA		
D625	48T44813F01	MA165TA		
D626	48T44813F01	MA165TA		
D627	48T44813F01	MA165TA		
D628	48T44813F01	MA165TA		
D629	48T44813F01	MA165TA		
D630	48T44813F01	MA165TA		
D631	48T44813F01	MA165TA		
■ D632	48T44813F01	MA165TA		
D633	48T51582F01	MA150		
D634	48T44813F01	MA165TA		
D635	48T44813F01	MA165TA		
D636	48T44813F01	MA165TA		
● D637	48T44813F01	MA165TA		
D638	48T52446F01	CP MA151WK		
● D640	48T44813F01	MA165TA		
● D641	48T44813F01	MA165TA		
D642	48T52446F01	CP MA151WK		
D643	48T52446F01	CP MA151WK		
D644	48T44813F01	MA165TA		
D645	48T44813F01	MA165TA		
D646	48T44813F01	MA165TA		
● D660	48T44813F02	MA165		
● D670	48T44813F02	MA165		
D689	48T44813F01	MA165TA		
D801	48T52446F01	CP MA151WK		
D803	48T44813F01	MA165TA		
D804	48C40235G02	10E2		

NOTE: ● 7284M Model Only, ■ 7284L Model Only, Others Common

Symbol No.	Part No.	Description		
D805	48C40235G02	10E2		
D806	48C40235G02	10E2		
D811	48C40235G02	10E2		
DSP001	48T70875F02	Surge Protector, DSP-201M		
ZD201	48T83128F25	Zener HZS9CIL		
ZD605	48T68697F20	Zener HZS5.6EB1		
ZD606	48T68697F17	Zener HZS5.1EB1		
ZD609	48T68697F20	Zener HZS5.6EB1		
ZD610	48T68697F20	Zener HZS5.6EB1		
ZD613	48T68697F20	Zener HZS5.6EB1		
● ZD614	48T68697F20	Zener HZS5.6EB1		
ZD616	48T83128F25	Zener HZS9CIL		
ZD618	48T68697F20	Zener HZS5.6EB1		
ZD619	48T68697F20	Zener HZS5.6EB1		
ZD699	48T68697F01	Zener HZS2.7EB1		
ZD801	48T83128F25	Zener HZS9CIL		
ZD802	48T83129F26	Zener HZS9C2L		
ZD804	48T68697F20	Zener HZS5.6EB1		
ZD805	48T83128F06	Zener HZS6B3L		
● ZD807	48T83128F25	Zener HZS9CIL		
Coils				
L001	24T50508F18	Inductor 4.7uH		
L002	24T50508F24	Inductor 15uH		
L003	24T42241U01	Dolby 23mH		
L004	24T42241U01	Dobly 23mH		
L005	24T50508F02	Inductor 0.22uH		
L010	24T51656F10	Inductor 1uH		
L802	24T58149F02	Inductor 1.2mH		
Volume Controls				
VR101	18T42748F13	10k ohms		
VR102	18T42748F13	10k ohms		
● VR301	18T82143F06	Volume Balance		
● S401		Fader		
● S801		Power Play/Prog		
■ VR301	18T82143F02	Volume Balance		
■ S401		Fader		
■ S801		Power Play/Prog		
Switches				
S430	40T64365F01	Slide (DIMMER)		
S431	40T82548F01	Tact SKELAJ (PAUSE)		
■ S433	40T64365F01	Slide		
Capacitors				
C001	23T43247F07	ELY 3.3uF 25V		
C002	08S53332F47	CP 0.01uF		
C003	08S53332F23	CP 100P		
● C004	23S61523F17	ELY 4.7uF 25V		
● C005	08S53332F37	CP 1500P		
C006	23S61523F12	ELY 10uF 16V		
C007	08S53332F39	CP 2200P		
C008	08S53332F39	CP 2200P		
C009	08S53332F41	CP 3300P		
C010	08S53332F41	CP 3300P		
C011	08S53332F42	CP 3900P		
C012	08S53332F42	CP 3900P		
C013	23T61512F22	ELY 0.22uF 50V		
C014	23T61512F22	ELY 0.22uF 50V		
C015	23T61513F34	ELY 10uF 50V		

Symbol No.	Part No.	Description		
C016	08S53332F51	CP 0.022uF		
C019	08T42629F75	MYL 0.047uF		
C020	08S53332F58	CP 0.056uF		
C023	23S61523F12	ELY 10uF 16V		
C024	23S61523F12	ELY 10uF 16V		
C030	08S65128F65	CP 4700P		
C031	08S65128F65	CP 4700P		
C040	21C45322G25	CER 220P		
C097	23S61523F12	ELY 10uF 16V		
C098	23S61523F12	ELY 10uF 16V		
C112	23T61512F08	ELY 10uF 16V		
C113	23T61512F08	ELY 10uF 16V		
C204	23S43247F04	ELY 0.47uF 50V		
C205	23S57007F04	ELY 0.47uF 50V		
C206	23C44780P19	ELY 220uF 10V		
C207	23C44780P19	ELY 220uF 10V		
C208	23S61524F09	ELY 22uF 10V		
C209	08T57705F67	MYL 0.01uF		
C210	08T57705F67	MYL 0.01uF		
C211	08T57705F69	MYL 0.015uF		
C212	08T57705F69	MYL 0.015uF		
C213	23S57007F20	ELY 0.68uF 50V		
C214	23S57007F20	ELY 0.68uF 50V		
C215	23T61512F26	ELY 2.2uF 50V		
C216	23T61512F26	ELY 2.2uF 50V		
C217	23S61523F12	ELY 10uF 16V		
C218	23S61523F12	ELY 10uF 16V		
C219	23T61513F09	ELY 47uF 10V		
● C322	08T42629F73	MYL 0.033uF		
■ C322	08T42629F29	MYL 0.1uF		
● C323	08T57705F73	MYL 0.033uF		
■ C323	08T57705F79	MYL 0.1uF		
C324	23S61523F12	ELY 10uF 16V		
● C327	23S41198U05	ELY 2.2uF 50V		
■ C327	23S57422F06	ELY 2.2uF 50V		
● C328	23S41198U05	ELY 2.2uF 50V		
■ C328	23S57422F06	ELY 2.2uF 50V		
● C330	23S41198U12	ELY 10uF 50V		
■ C330	23S57422F09	ELY 10uF 16V		
● C333	23S41198U12	ELY 10uF 50V		
■ C333	23S57422F09	ELY 10uF 16V		
● C334	23S41198U12	ELY 10uF 50V		
■ C334	23S57422F09	ELY 10uF 16V		
● C630	23T61513F10	ELY 100uF 10V		
C632	23S61523F12	ELY 10uF 16V		
C634	23C44780P19	ELY 220uF 10V		
C635	08S53332F47	CP 0.01uF		
C636	23T41366F41	ELY 2.2uF 50V (BP)		
C637	08S53332F47	CP 0.01uF		
C638	08S53332F47	CP 0.01uF		
C639	23S61523F27	ELY 0.33uF 50V		
C640	08S53332F55	CP 0.047uF		
● C641	08T50579F21	TF 0.47uF		
■ C641	08T57851F21	TF 0.47uF		
C642	23S61523F09	ELY 22uF 10V		
C643	08S53332F15	CP 22P		
C644	08S53332F15	CP 22P		
C645	23S61523F17	ELY 4.7uF 25V		
C646	23T41366F42	ELY 3.3uF 50V (BP)		
C647	23S57422F04	ELY 0.47uF 50V		
● C649	23C44780P05	ELY 470uF 16V		
● C650	23S57007F15	ELY 47uF 16V		
C651	23S61523F10	ELY 3.3uF 10V		
C699	23S41059P07	TAN 1uF 35V		

NOTE: ● 7284M Model Only, ■ 7284L Model Only, Others Common

Symbol No.	Part No.	Description		
C802	23C44780P19	ELY 220uF 10V		
C808	23S61523F29	ELY 1uF 50V		
C809	23S61523F34	ELY 100uF 10V		
● C810	23S61523F12	ELY 10uF 16V		
C812	23T51232F02	ELY 1000uF 16V		
C815	23S61523F11	ELY 47uF 10V		
C817	23S61523F12	ELY 10uF 16V		
C818	23C44780P20	ELY 100uF 10V		
C823	08S65128F69	CP 0.01P		
C1009	21S40655F17	CER 33P		
Resistors				
R001	06S64995F93	CP 47k ohms 1/16W		
R002	06S53330F53	CP 1k ohms 1/8W		
R003	06S64995F69	CP 4.7k ohms 1/16W		
R004	06S53331F06	CP 150k ohms 1/8W		
R005	06S53330F21	CP 47 ohms 1/8W		
R006	06S53330F29	CP 100 ohms 1/8W		
● R007	06S64995F99	CP 82k ohms 1/16W		
● R008	06S64995F85	CP 22k ohms 1/16W		
● R009	06S53330F63	CP 2.7k ohms 1/8W		
● R010	06S64995F53	CP 1k ohms 1/16W		
● R011	06S53330F69	CP 4.7k ohms 1/8W		
R012	06S53330F77	CP 10k ohms 1/8W		
R014	06S53330F65	CP 3.3k ohms 1/8W		
■ R015	06S53330F71	CP 5.6k ohms 1/8W		
■ R016	06S53330F71	CP 5.6k ohms 1/8W		
● R017	06S64995F70	CP 5.1k ohms 1/16W		
■ R017	06S64995F75	CP 8.2k ohms 1/8W		
● R018	06S64995F70	CP 5.1k ohms 1/16W		
■ R018	06S64995F75	CP 8.2k ohms 1/8W		
R019	06S53330F85	CP 22k ohms 1/8W		
R020	06S53330F85	CP 22k ohms 1/8W		
R021	06S53330F77	CP 10k ohms 1/8W		
R022	06S53330F77	CP 10k ohms 1/8W		
R023	06S53330F53	CP 1k ohms 1/8W		
R024	06S53330F77	CP 10k ohms 1/8W		
R026	06S64995F87	CP 27k ohms 1/8W		
R028	06S64995F85	CP 22k 1/16W		
R029	06S64995F81	CP 15k ohms 1/16W		
R030	06S64995F69	CP 4.7k ohms 1/16W		
R034	06S64995F85	CP 22k 1/16W		
R206	06S53330F85	CP 22k ohms 1/8W		
R207	06S64995F85	CP 22k 1/16W		
R211	06T70072F45	CP 470 ohms 1/4W		
● R321	06S53330F71	CP 5.6k ohms 1/8w		
■ R321	06S53330F59	CP 1.8k ohms 1/8W		

Symbol No.	Part No.	Description		
● R322	06S53330F71	CP 5.6k ohms 1/8W		
■ R322	06S53330F59	CP 1.8k ohms 1/8W		
R323	06S53330F37	CP 220 ohms 1/8W		
R324	06S53330F37	CP 220 ohms 1/8W		
R327	06S64995F67	CP 3.9k ohms 1/16W		
R328	06S64995F67	CP 3.9k ohms 1/16W		
R329	06S53330F77	CP 10k ohms 1/8W		
R330	06S53330F77	CP 10k ohms 1/8W		
R331	06S53330F77	CP 10k ohms 1/8W		
● R333	06S53330F65	CP 3.3k ohms 1/8W		
R340	06S53331F02	CP 100k ohms 1/8W		
R341	06S53331F02	CP 100k ohms 1/8W		
R344	06S53330F69	CP 4.7k ohms 1/8W		
R345	06S53330F69	CP 4.7k ohms 1/8W		
R348	06S53330F85	CP 22k ohms 1/8W		
R349	06S53330F85	CP 22k ohms 1/8W		
R350	06S53330F05	CP 10 ohms 1/8W		
R353	06S53330F37	CP 220 ohms 1/8W		
R354	06S53330F37	CP 220 ohms 1/8W		
R357	06S53330F85	CP 22k ohms 1/8W		
R358	06S53330F85	CP 22k ohms 1/8W		
R361	06S53330F37	CP 220 ohms 1/8W		
R362	06S53330F37	CP 220 ohms 1/8W		
R365	06S53330F77	CP 10k ohms 1/8W		
R366	06S53330F77	CP 10k ohms 1/8W		
R370	06S53331F26	CP 1M ohms 1/8W		
● R390	06T84878F71	Block 2.2kx4		
R502	06S53330F69	CP 4.7k ohms 1/8W		
● R505	06S53330F69	CP 4.7k ohms 1/8W		
R509	06T70072F23	CP 56 ohms 1/4W		
R521	06S53330F77	CP 10k ohms 1/8W		
● R523	06S53330F77	CP 10k ohms 1/8W		
● R527	06S53330F85	CP 22k ohms 1/8W		
R547	06S64995F41	CP 330 ohms 1/16W		
R548	06S64995F41	CP 330 ohms 1/16W		
R550	06S53330F85	CP 22k ohms 1/8W		
R643	06S53330F77	CP 10k ohms 1/8W		
R644	06S53330F77	CP 10k ohms 1/8W		
R645	06S64995F77	CP 10k ohms 1/16W		
R647	06S64995F77	CP 10k ohms 1/16W		
R648	06S64995F77	CP 10k ohms 1/16W		
R649	06S53330F77	CP 10k ohms 1/8W		
R650	06S64995F77	CP 10k ohms 1/16W		

NOTE: ● 7284M Model Only, ■ 7284L Model Only, Others Common

Symbol No.	Part No.	Description		
R653	06S64995F77	CP 10k ohms 1/16W		
R658	06S64995F77	CP 10k ohms 1/16W		
R670	06S64995F93	CP 47k ohms 1/16W		
R672	06S53330F65	CP 3.3k ohms 1/8W		
R673	06S64995F65	CP 3.3k ohms 1/16W		
R674	06S53330F05	CP 10 ohms 1/8W		
R675	06S53330F53	CP 1k ohms 1/8W		
R676	06S53330F53	CP 1k ohms 1/8W		
R677	06S64996F26	CP 1M ohms 1/16W		
R678	06S53330F63	CP 2.7k ohms 1/8W		
R679	06S64995F61	CP 2.2k ohms 1/16W		
R680	06S53330F71	CP 5.6k ohms 1/8W		
R681	06S53330F47	CP 560 ohms 1/8W		
R684	06S53330F65	CP 3.3k ohms 1/8W		
R685	06S64995F05	CP 10 ohms 1/16W		
● R686	06S64995F77	CP 10k ohms 1/16W		
R687	06S53330F69	CP 4.7k ohms 1/8W		
● R688	06S64995F85	CP 22k ohms 1/16W		
■ R688	06S64995F77	CP 10k ohms 1/8W		
R689	06S53330F85	CP 22k ohms 1/8W		
● R690	06S53330F77	CP 10k ohms 1/8W		
● R691	06S53330F77	CP 10k ohms 1/8W		
R694	06S53330F69	CP 4.7k ohms 1/8W		
R695	06S53330F77	CP 10k ohms 1/8W		
R697	06S64995F85	CP 22k ohms 1/16W		
R698	06S64995F77	CP 10k ohms 1/16W		
R699	06S53330F77	CP 10k ohms 1/8W		
R810	06S53330F77	CP 10k ohms 1/8W		
R812	06S53331F10	CP 220k ohms 1/8W		
R813	06S53331F10	CP 220k ohms 1/8W		
R814	06S53330F67	CP 3.9k ohms 1/8W		
● R816	06S64995F53	CP 1k ohms 1/16W		
R818	06T70072F53	CP 1k ohms 1/4W		
R819	06S53330F61	CP 2.2k ohms 1/8W		
R820	06S53330F77	CP 10k ohms 1/8W		
R821	06S53330F77	CP 10k ohms 1/8W		
R822	06S53330F87	CP 27k ohms 1/8W		
Crystal				
X601	48T55073F01	4.5MHZ		

Symbol No.	Part No.	Description		
Pre-Amp P.C. Board				
IC				
IC101	51T64606F01	TA7705F		
Transistor				
Q101	48T62967F03	CP DTC124K		
Diode				
D101	48T68828F01	1SS133		
Capacitors				
C101	21C45322G26	CER 330P		
C102	21C45322G26	CER 330P		
C103	21C45322G26	CER 330P		
C104	21C45322G26	CER 330P		
C105	23T61512F04	ELY 100uF 6.3V		
C106	23T61512F04	ELY 100uF 6.3V		
C107	23S57007F09	ELY 10uF 16V		
C108	08T57705F68	MYL 0.012uF		
C109	08T57705F68	MYL 0.012uF		
C110	23T61512F13	ELY 4.7uF 25V		
C111	23C44780P22	ELY 100uF 16V		
C112	08S53332F51	CP 0.022uF		
C113	08S53332F28	CP 270P		
C114	08S53332F57	CP 0.1uF		
Resistors				
R101	06S53331F06	CP 150k ohms 1/8W		
R102	06S53331F06	CP 150k ohms 1/8W		
R103	06S53331F06	CP 150k ohms 1/8W		
R104	06S53331F06	CP 150k ohms 1/8W		
R105	06S53330F35	CP 180 ohms 1/8W		
R106	06S53330F35	CP 180 ohms 1/8W		
R107	06S53331F14	CP 330k ohms 1/8W		
R108	06S53331F14	CP 330k ohms 1/8W		
R109	06S53330F79	CP 12k ohms 1/8W		
R110	06S53330F79	CP 12k ohms 1/8W		
R111	06S53330F80	CP 13k ohms 1/8W		
R112	06S53330F80	CP 13k ohms 1/8W		
R113	06S53330F85	CP 22k ohms 1/8W		
R114	06S53330F85	CP 22k ohms 1/8W		
R115	06S53330F85	CP 22k ohms 1/8W		
R116	06S53330F29	CP 100 ohms 1/8W		
R117	06S53330F89	CP 33k ohms 1/8W		
R118	06S53330F85	CP 22k ohms 1/8W		
R119	06S53330F85	CP 22k ohms 1/8W		
Front P.C. Board				
LEDs & Lamps				
LD401	48T51833F04	LED AA4524K (ORG)		
LD402	48T51833F04	LED AA4524K (ORG)		
LD403	48T51833F03	LED BG4524K (GRN)		

NOTE: ● 7284M Model Only, ■ 7284L Model Only, Others Common

Symbol No.	Part No.	Description		
LD404	48T51833F03	LED BG4524K (GRN)		
LD405	48T51833F03	LED BG4524K (GRN)		
LD406	48T51833F03	LED BG4524K (GRN)		
LD407	48T51833F03	LED BG4524K (GRN)		
LD408	48T51833F03	LED BG4524K (GRN)		
LD409	48T51833F03	LED BG4524K (GRN)		
LD410	48T51833F03	LED BG4524K (GRN)		
LD411	48T51833F03	LED BG4524K (GRN)		
PL401	65T81729F02	Lamp, Pilot 12V-50mA		
PL402	65T81729F02	Lamp, Pilot 12V-50mA		
PL404	65T81294F02	Lamp, Pilot 6V-65mA		
PL405	65T81294F02	Lamp, Pilot 6V-65mA		
PL406	65T81294F02	Lamp, Pilot 6V-65mA		
PL407	65T81294F02	Lamp, Pilot 6V-65mA		
Switches				
S402	40T70366F01	Tackt KHL-10906 FF		
S403	40T70366F01	Tackt KHL-10906 REW		
S404	40T70366F01	Tackt KHL-10906 EJECT		
S405	40T70366F01	Tackt KHL-10906 SEEK		
S406	40T70366F01	Tackt KHL-10906 MS		
S407	40T70366F01	Tackt KHL-10906 M1		
S408	40T70366F01	Tackt KHL-10906 LOUD		
S409	40T70366F01	Tackt KHL-10906 UP		
S410	40T70366F01	Tackt KHL-10906 M6		
S411	40T70366F01	Tackt KHL-10906 M2		
S412	40T70366F01	Tackt KHL-10906 DX		
S413	40T70366F01	Tackt KHL-10906 DN		
S414	40T70366F01	Tackt KHL-10906 M3		
S415	40T70366F01	Tackt KHL-10906 ST		
S416	40T70366F01	Tackt KHL-10906 ME		
S417	40T70366F01	Tackt KHL-10906 TAPE/PAUSE		
S418	40T70366F01	Tackt KHL-10906 M4		
S419	40T70366F01	Tackt KHL-10906 BAND		

Symbol No.	Part No.	Description		
Volume Controls				
VR202 LD412 LD413	18T82527F01	Slide (GRN) 100k ohms 2-2 (TREB, BASS)		
Resistors				
R401	06T70072F21	CP 47 ohms 1/4W		
R402	06T70072F21	CP 47 ohms 1/4W		
R405	06T70072F17	CP 33 ohms 1/4W		
R406	06T70072F45	CP 470 ohms 1/4W		
R407	06T70072F47	CP 560 ohms 1/4W		
R408	06T70072F47	CP 560 ohms 1/4W		
R409	06T70072F49	CP 680 ohms 1/4W		
R410	06T70072F47	CP 560 ohms 1/4W		
R508	06T70072F17	CP 33 ohms 1/4W		
R642	06S53330F49	CP 680 ohms 1/8W		
SDK P.C. Board				
ICs				
● IC601	51T82523F01	TDA1579		
● IC602	51T83062F01	NJM2902N		
● IC603	51T47739F01	TC4066BP		
Transistors				
● Q602	48T52438F02	CP 2SD601A		
● Q604	48T62967F03	CP DTC124K		
● or	48T64222F02	CP UN2212		
● Q605	48T62967F03	CP DTC124K		
● or	48T64222F02	CP UN2212		
● Q607	48T62967F08	CP DTC144W		
● Q608	48T62967F08	CP DTC144W		
Diodes				
● D601	48T44813F01	MA165TA		
● or	48T68828F01	1SS133		
● or	48T58583F01	1SS176		
● D604	48T44813F01	MA165TA		
● or	48T68828F01	1SS133		
● or	48T58583F01	1SS176		
● D6643	48T44813F01	MA165TA		
● or	48T68828F01	1SS133		
● or	48T58583F01	1SS176		
● D6644	48T52444F01	CP MA151A		
● D6645	48T52445F01	CP MA151WA		
● D6646	48T52446F01	CP MA151WK		
● ZD602	48T68697F23	Zener HZS6.2EB1		
Volume Control				
● VR601	18T42748F02	150 ohms		
Coil				
● L601	24T84175F01	Coil SDK (57kHz)		
Capacitors				
● C603	08T57705F75	MYL 0.047uF		
● C604	08T57705F73	MYL 0.033uF		
● C605	23S57007F01	ELY 0.1uF 50V		
● C606	08S53332F57	CP 0.1uF		
● C607	08S53332F57	CP 0.1uF		

NOTE: ● 7284M Model Only, ■ 7284L Model Only, Others Common

Symbol No.	Part No.	Description		
● C608	08T57851F13	TF 0.1uF		
● C609	08T57705F75	MYL 0.047uF		
● C610	08T57705F77	MYL 0.068uF		
● C611	08T57705F77	MYL 0.068uF		
● C612	23T61512F21	ELY 0.1uF 50V		
● C616	08S65128F69	CP 0.01uF		
● C617	08S65128F74	CP 0.047uF		
● C619	23T61513F16	ELY 4.7uF 25V		
● C620	23S40657F07	ELY 47uF 10V		
● C621	23T61512F08	ELY 10uF 16V		
● C622	08S65128F73	CP 0.033uF		
● C648	23S57007F12	ELY 33uF 10V		
Resistors				
● R527	06S53330F41	CP 330 ohms 1/8W		
● R529	06S64995F89	CP 33k ohms 1/16W		
● R530	06S64995F89	CP 33k ohms 1/16W		
● R534	06S64995F89	CP 33k ohms 1/16W		
● R537	06S64995F65	CP 3.3k ohms 1/16W		
● R538	06S64996F04	CP 120k ohms 1/16W		
● R539	06S64996F02	CP 100k ohms 1/16W		
● R540	06S53331F03	CP 110k ohms 1/8W		
● R541	06S64995F92	CP 43k ohms 1/16W		
● R542	06S53331F04	CP 120k ohms 1/8W		
● R543	06S53331F03	CP 110k ohms 1/8W		
● R544	06S64996F02	CP 100k ohms 1/16W		
● R545	06S64995F91	CP 39k ohms 1/16W		
● R546	06S64995F65	CP 3.3k ohms 1/16W		
● R560	06S64995F83	CP 18k ohms 1/16W		
● R601	06S64995F77	CP 10k ohms 1/16W		
● R602	06S53331F04	CP 120k ohms 1/8W		
● R603	06S64995F97	CP 68k ohms 1/16W		
● R604	06S64996F22	CP 680k ohms 1/16w		
● R608	06S64995F97	CP 68k ohms 1/16W		
● R609	06S64995F97	CP 68k ohms 1/16W		
● R611	06S53330F69	CP 4.7k ohms 1/8W		
● R612	06S64996F02	CP 100k ohms 1/16W		
● R614	06S53331F22	CP 680k ohms 1/8W		
● R616	06S53330F93	CP 47k ohms 1/8W		
● R617	06S64995F43	CP 390 ohms 1/16W		
● R618	06S53331F10	CP 220k ohms 1/8W		

Symbol No.	Part No.	Description		
● R627	06S64995F85	CP 22k ohms 1/16W		
● R629	06S53330F53	CP 1k ohms 1/8W		
● R631	06S53330F77	CP 10k ohms 1/8W		
● R632	06S53330F88	CP 30k ohms 1/8W		
● R633	06S53330F71	CP 5.6k ohms 1/8W		
● R634	06S53331F26	CP 1M ohms 1/8W		
● R635	06S53331F26	CP 1M ohms 1/8W		
● R6614	06S64995F91	CP 39k ohms 1/16W		
Tone P.C. Board				
IC				
IC301	51T73718F01	NJM4560M		
Diode				
D559	48T44813F01	MA165TA		
Capacitors				
C301	08T52448F03	PP 390P		
C302	08T57705F71	MYL 0.022uF		
C303	08T52448F03	PP 390P		
C304	08T57705F71	MYL 0.022uF		
C305	08T52448F01	PP 330P		
C306	08T57705F81	MYL 0.15uF		
C307	08T52448F01	PP 330P		
C308	08T57705F81	MYL 0.15uF		
C309	23S41198U03	ELY 1uF 50V		
C311	23T00133L01	ELY 10uF 16V		
C315	23C44780P19	ELY 220uF 10V		
C320	23S41198U03	ELY 1uF 50V		
C328	08S53332F14	CP 18P		
C329	08S53332F14	CP 18P		
Resistors				
R301	06S53330F71	CP 5.6k ohms 1/8W		
R302	06S53330F83	CP 18k ohms 1/8W		
R303	06S53330F71	CP 5.6k ohms 1/8W		
R304	06S53330F83	CP 18k ohms 1/8W		
R305	06S53330F83	CP 18k ohms 1/8W		
R306	06S53330F71	CP 5.6k ohms 1/8W		
R307	06S53330F71	CP 5.6k ohms 1/8W		
R308	06S53330F83	CP 18k ohms 1/8W		
R309	06S53330F91	CP 39k ohms 1/8W		
R310	06S53330F91	CP 39k ohms 1/8W		
R311	06S53331F26	CP 1M ohms 1/8W		
R312	06S53331F26	CP 1M ohms 1/8W		
R314	06S53330F05	CP 10 ohms 1/8W		
R315	06S53330F05	CP 10 ohms 1/8W		
Power Amp P.C. Board				
IC				
IC501	51T82314F01	AN7171K		

NOTE: ● 7284M Model Only, ■ 7284L Model Only, Others Common

Symbol No.	Part No.	Description		
Capacitors				
C340	23C44780P20	ELY 100uF 10V		
C341	08S53332F37	CP 1500P		
C342	08S53332F37	CP 1500P		
C343	08T57705F67	MYL 0.01uF		
C344	08T57705F67	MYL 0.01uF		
C345	23T61513F10	ELY 100uF 10V		
C346	23T61513F10	ELY 100uF 10V		
C347	08T57851F15	TF 0.15uF		
C348	08T57851F15	TF 0.15uF		
C349	08T57851F15	TF 0.15uF		
C350	08T57851F15	TF 0.15uF		
C503	08S53332F55	CP 0.047uF		
C599	08S53332F55	CP 0.047uF		
C811	23C42170G37	ELY 3300uF 16V		
Resistors				
R371	06S53330F37	CP 220 ohms 1/8W		
R372	06S53330F37	CP 220 ohms 1/8W		
R373	06S53331F40	CP 2.2 ohms 1/8W		
R374	06S53331F40	CP 2.2 ohms 1/8W		
R375	06S53331F40	CP 2.2 ohms 1/8W		
R376	06S53331F40	CP 2.2 ohms 1/8W		
R377	06S53330F41	CP 330 ohms 1/8W		
R378	06S53330F41	CP 330 ohms 1/8W		
R379	06S53330F41	CP 330 ohms 1/8W		
R380	06S53330F41	CP 330 ohms 1/8W		
Switching P.C. Board				
IC				
■ IC503	51T47739F01	TC4066BP		
Transistors				
■ Q501	48T62967F03	CP DTC124K		
■ Q502	48T62967F03	CP DTC124K		
Diode				
■ ZD501	48T68697F23	Zener HZS6.2EB1		
Contorl P.C. Board				
ICs				
IC701	51T71799F01	71799F01		
IC702	51T71802F01	71802F01		
Transistors				
Q701	48T52547F02	2SB793A		
Q702	48T62967F03	CP DTC124K		
Diodes				
D701	48T52445F01	CP MA151WA		
D702	48T52446F01	CP MA151WK		
ZD701	48T68697F54	Zener HZS16EB1		
ZD702	48T62934F29	Zener RD6.8MB3		
Capacitors				
C701	23T82482F02	ELY 100uF 16V		
C702	23S61523F12	ELY 10uF 16V		
C703	08T50579F09	TF. 0.047uF		
C704	23S61523F15	ELY 47uF 16V		
C705	08S53332F53	CP 0.033uF		
C706	08S53332F47	CP 0.01uF		
C707	08S53332F57	CP 0.1uF		

Symbol No.	Part No.	Description		
Resistors				
R701	06S81094F09	MF 4.7 ohms 1/2W		
R702	06S81094F65	MF 1k ohms 1/2W		
R703	06S53330F77	CP 10k ohms 1/8W		
R704	06S81094F05	MF 3.3 ohms 1/2W		
R706	06S53330F77	CP 10k ohms 1/8W		
R708	06S64995F94	CP 51k ohms 1/16W		
R709	06S53330F85	CP 22k ohms 1/8W		
R710	06S53330F71	CP 5.6k ohms 1/8W		
R711	06S53330F29	CP 100 ohms 1/8W		
R712	06S53331F12	CP 270k ohms 1/8W		
R713	06S53331F31	CP 2.7M ohms 1/8W		
Reverse P.C. Board				
PT701	51T63433F01	Sensor, Photo		
PT702	51T63433F01	Sensor, Photo		
Miscellaneous Parts				
LCD401	65T82525F01	LCD, Display LU1304		
BA601	60T83249F01	Battery Lithium BR2032		
E801	01T82521F06	ASSY, Connector QRB(B) 20P		
ZD101	48T40150U58	Diode Zener HZ11C-1		
M701	01V71800F20	ASSY Motor		
M702	01V83500F82	ASSY RF Motor		
HD701	88T74470F01	Head		
S701	40T52216F01	Switch, Micro (Pack In)		
S702	40T60329F02	Switch, Leaf (Eject, Pack In)		
S704	40T63432F01	Switch, Slide (For/Rev.)		
S705	40T71025F03	Switch, Detector (Position)		
S706	40T71025F03	Switch, Detector (Metal)		
SD701	01A63213F01	ASSY Program Solenoid		
SD702	01A63215F01	ASSY Eject Solenoid		
SD703	01A63212F01	ASSY Play Solenoid		
SD704	01A63214F01	ASSY RF Solenoid		

NOTE: ● 7284M Model Only, ■ 7284L Model Only, Others Common

(7284E Model only)

Resistors: Carbon resistors under 1/4 watts are not mentioned in the parts list, please confirm them by schematic diagram.

Abbreviation of Electrolytic Words

CP=CHIP
CF=CARBON FILM
MF=METAL FILM
MO=METAL OXIDE FILM
MP=METAL PLATE
ELY=ELECTROLYTIC
CER=CERAMIC
MYL=MYLAR
TAN=TANTALUM
POLY=POLYSTYROL
PP=POLYPROPYLENE
TRANS=TRANSFORMER
CONN=CONNECTOR
uF=microfarads
P=picofarads

Symbol No.	Part No.	Description		
Pre-Amp. P.C. Board				
IC				
IC101	51T64606F01	TA7705F		
Transistor				
Q101	48T62967F03	CP DTC124K		
Diode				
D101	48T68828F01	1SS133		
Capacitors				
C101	21C45322G26	CER 330P		
C102	21C45322G26	CER 330P		
C103	21C45322G26	CER 330P		
C104	21C45322G26	CER 330P		
C105	23T61512F04	ELY 100uF 6.3V		
C106	23T61512F04	ELY 100uF 6.3V		
C107	23S57007F09	ELY 10uF 16V		
C108	08T57705F68	MYL 0.012uF		
C109	08T57705F68	MYL 0.012uF		
C110	23T61512F13	ELY 4.7uF 25V		
C111	23C44780P22	ELY 100uF 16V		
C112	08S53332F51	CP 0.022uF		
C113	08S53332F28	CP 270P		
C114	08S53332F57	CP 0.1uF		
Resistors				
R101	06S53331F06	CP 150k ohms 1/8W		
R102	06S53331F06	CP 150k ohms 1/8W		
R103	06S53331F06	CP 150k ohms 1/8W		
R104	06S53331F06	CP 150k ohms 1/8W		
R105	06S53330F35	CP 180 ohms 1/8W		
R106	06S53330F35	CP 180 ohms 1/8W		
R107	06S53331F14	CP 330k ohms 1/8W		
R108	06S53331F14	CP 330k ohms 1/8W		
R109	06S53330F79	CP 12k ohms 1/8W		
R110	06S53330F79	CP 12k ohms 1/8W		
R111	06S53330F80	CP 13k ohms 1/8W		
R112	06S53330F80	CP 13k ohms 1/8W		
R113	06S53330F85	CP 22k ohms 1/8W		
R114	06S53330F85	CP 22k ohms 1/8W		
R115	06S53330F85	CP 22k ohms 1/8W		
R116	06S53330F29	CP 100 ohms 1/8W		
R117	06S53330F89	CP 33k ohms 1/8W		
R118	06S53330F85	CP 22k ohms 1/8W		
R119	06S53330F85	CP 22k ohms 1/8W		

Symbol No.	Part No.	Description		
Main Control P.C. Board				
ICs				
IC201	51T73937F01	uPD4052BG		
IC302	51T80136F01	M5238P		
IC601	51T81985F05	81985F05		
IC602	51T47739F01	TC4066BP		
IC801	51T73718F02	NJM4560D		
Transistors				
Q001	48T62967F03	CP DTC124K		
or	48T64222F02	CP UN2212		
Q002	48T63417F01	CP 2SC2412K		
Q003	48T63420F01	CP 2SA1037K		
Q004	48T82429F01	CP 2SC3142		
Q201	48T82758F02	2SC4038QRS		
Q301	48T62967F03	CP DTC124K		
or	48T64222F02	CP UN2212		
Q302	48T62967F03	CP DTC124K		
or	48T64222F02	CP UN2212		
Q303	48T62967F33	CP DTC343T		
Q304	48T62967F33	CP DTC343T		
Q305	48T57337F03	2SD1330		
Q306	48T57337F03	2SD1330		
Q601	48T42182U01	2SD661		
Q602	48T42182U01	2SD661		
Q603	48T63417F01	CP 2SC2412K		
Q604	48T63417F01	CP 2SC2412K		
Q605	48T63420F01	CP 2SA1037K		
Q606	48T63420F01	CP 2SA1037K		
Q607	48T63420F01	CP 2SA1037K		
Q608	48T63420F01	CP 2SA1037K		
Q609	48T62967F03	CP DTC124K		
or	48T64222F02	CP UN2212		
Q610	48T62967F03	CP DTC124K		
or	48T64222F02	CP UN2212		
Q611	48T63417F01	CP 2SC2412K		
Q612	48T62966F02	CP DTA114		
or	48T64221F01	CP UN2111		
Q613	48T62966F02	CP DTA114		
or	48T64221F01	CP UN2111		
Q614	48T62967F09	CP DTC114T		
or	48T64222F05	CP UN2215		
Q615	48T62967F03	CP DTC124K		
or	48T64222F02	CP UN2212		
Q616	48T62967F03	CP DTC124K		
or	48T64222F02	CP UN2212		
Q617	48T62967F03	CP DTC124K		
or	48T64222F02	CP UN2212		
Q618	48T82758F02	2SC4038QRS		
Q619	48T63417F01	CP 2SC2412K		
Q620	48T62967F03	CP DTC124K		
or	48T64222F02	CP UN2212		
Q623	48T62967F03	CP DTC124K		
or	48T64222F02	CP UN2212		
Q624	48T62967F08	CP DTC144W		
Q801	48T83416F03	2SB1278		
Q802	48T62967F03	CP DTC124K		
or	48T64222F02	CP UN2212		

Symbol No.	Part No.	Description		
Q803	48T83414F04	2SD1860		
Q804	48T83414F04	2SD1860		
Q805	48T62967F03	CP DTC124K		
or	48T64222F02	CP UN2212		
Q806	48T62967F03	CP DTC124K		
or	48T64222F02	CP UN2212		
Q807	48T63788F01	CP 2SD1328		
Diodes/Surge Protector				
D002	48T58583F01	1SS176		
or	48T68828F01	1SS133		
D003	48T58583F01	1SS176		
or	48T68828F01	1SS133		
D004	48T52446F01	CP MA151WK		
or	48T63462F01	CP DAN202K		
D601	48T63463F01	CP DAP202K		
or	48T52445F01	CP MA151WA		
D602	48T63463F01	CP DAP202K		
or	48T52445F01	CP MA151WA		
D603	48T63463F01	CP DAP202K		
or	48T52445F01	CP MA151WA		
D604	48T63463F01	CP DAP202K		
or	48T52445F01	CP MA151WA		
D609	48T51582F01	MA150		
D610	48T58583F01	1SS176		
or	48T68828F01	1SS133		
D611	48T58583F01	1SS176		
or	48T68828F01	1SS133		
D612	48T58583F01	1SS176		
or	48T68828F01	1SS133		
D613	48T58583F01	1SS176		
or	48T68828F01	1SS133		
D614	48T51582F01	MA150		
D615	48T51582F01	MA150		
D616	48T51582F01	MA150		
D617	48T51582F01	MA150		
D618	48T58583F01	1SS176		
or	48T68828F01	1SS133		
D619	48T58583F01	1SS176		
or	48T68828F01	1SS133		
D620	48T58583F01	1SS176		
or	48T68828F01	1SS133		
D621	48T58583F01	1SS176		
or	48T68828F01	1SS133		
D622	48T58583F01	1SS176		
or	48T68828F01	1SS133		
D623	48T52446F01	CP MA151WK		
or	48T63462F01	CP DAN202K		
D624	48T52446F01	CP MA151WK		
or	48T63462F01	CP DAN202K		
D625	48T58583F01	1SS176		
or	48T68828F01	1SS133		
D626	48T58583F01	1SS176		
or	48T68828F01	1SS133		
D627	48T52446F01	CP MA151WK		
or	48T63462F01	CP DAN202K		
D628	48T58583F01	1SS176		
or	48T68828F01	1SS133		
D629	48T58583F01	1SS176		
or	48T68828F01	1SS133		
D801	48C40235G02	10E2		
D802	48C40235G02	10E2		
D803	48C40235G02	10E2		
D804	48C40235G02	10E2		
ZD201	48T68697F37	Zener, HZS9.1EB3		
or	48T68699F29	Zener, MTZ 9.1-C		

Symbol No.	Part No.	Description		
ZD202	48T68697F17	Zener, HZS5.1EB1		
or	48T68699F09	Zener, MTZ 5.1-A		
ZD601	48T68697F37	Zener, HZS9.1EB3		
or	48T68699F29	Zener, MTZ 9.1-C		
ZD602	48T68697F19	Zener, HZS5.1EB3		
or	48T68699F11	Zener, MTZ 5.1-C		
ZD603	48T68697F17	Zener, HZS5.1EB1		
or	48T68699F09	Zener, MTZ 5.1-A		
ZD604	48T83128F06	Zener, HZS6B3L		
ZD607	48T68697F17	Zener, HZS5.1EB1		
or	48T68699F09	Zener, MTZ 5.1-A		
ZD608	48T68697F17	Zener, HZS5.1EB1		
or	48T68699F09	Zener, MTZ 5.1-A		
ZD610	48T68697F17	Zener, HZS5.1EB1		
or	48T68699F09	Zener, MTZ 5.1-A		
ZD801	48T68697F38	Zener, HZS 10EB1		
or	48T68699F30	Zener, MTZ 10A		
ZD802	48T68697F35	Zener, HZS9.1EB1		
or	48T68699F27	Zener, MTZ 9.1-A		
DSP001	48T81909F02	Surge Protector, DSP-301N		
Coils				
L001	24T50508F18	Inductor, 4.7uH		
L003	24T50508F02	Inductor, 0.22uH		
L801	24T58149F02	Inductor, 1.2mH		
T001	24T42241U01	Dolby 23mH (WHT)		
T002	24T42241U01	Dolby 23mH (WHT)		
Volume Controls				
VR201	18T42748F13	10k ohms		
VR202	18T42748F13	10k ohms		
VR301		Volume, Control,		
S419	18T82143F02	PLAY/PROG.		
S801		POWER,		
Switches				
S601	40T64365F01	Slide (Dimmer)		
S602	40T82548F01	Tact SKELAJ (QRB)		
Capacitors				
C001	23T43247F02	ELY 0.22uF 50V		
C002	23S61523F25	ELY 0.1uF 50V		
C003	08S53332F57	CP 0.1uF		
C004	23S57007F09	ELY 10uF 16V		
C005	08S53332F42	CP 3900P		
C006	08S53332F42	CP 3900P		
C007	08S53332F41	CP 3300P		
C008	08S53332F41	CP 3300P		
C009	08S53332F39	CP 2200P		
C010	08S53332F39	CP 2200P		
C011	08S53332F47	CP 0.01uF		
C012	08S53332F47	CP 0.01uF		
C013	08S53332F23	CP 100P		
C016	08T61939F25	CER 39P		
C017	08S53332F49	CP 0.015uF		
C201	23S41198U26	ELY 47uF 10V		
C230	23T61513F11	ELY 10uF 16V		
C231	23T61513F11	ELY 10uF 16V		
C312	23S61523F12	ELY 10uF 16V		
C313	08T50579F13	TF. 0.1uF		

Symbol No.	Part No.	Description		
C314	08T57851F13	TF. 0.1uF		
C316	23S61523F30	ELY 2.2uF 50V		
C317	23S61523F30	ELY 2.2uF 50V		
C320	23S57422F09	ELY 10uF 16V		
C321	23S57422F09	ELY 10uF 16V		
C324	23S57422F09	ELY 10uF 16V		
C329	08S53332F35	CP 1000P		
C602	08S60102F28	CP 0.047uF		
C603	08S60102F28	CP 0.047uF		
C604	08S53332F51	CP 0.022uF		
C605	23T41366F41	ELY (BP) 2.2uF 50V		
C606	08S53332F47	CP 0.01uF		
C607	23S61523F34	ELY 100uF 10V		
C608	08S53332F51	CP 0.022uF		
C609	08S53332F15	CP 22P		
C610	08S53332F15	CP 22P		
C611	23S61523F08	ELY 100uF 6.3V		
C613	23S61523F11	ELY 47uF 10V		
C614	23S61523F29	ELY 1uF 50V		
C615	23S61523F12	ELY 10uF 16V		
C616	23T41366F42	ELY (BP) 3.3uF 50V		
C618	23C44780P20	ELY 100uF 10V		
C619	08S53332F35	CP 1000P		
C620	08S53332F35	CP 1000P		
C621	08S53332F35	CP 1000P		
C622	08S53332F35	CP 1000P		
C624	23S61523F28	ELY 0.47uF 50V		
C625	08T65480F61	CER 0.01uF		
C801	23C44780P19	ELY 220uF 10V		
C802	23S57007F09	ELY 10uF 16V		
C803	23T51232F02	ELY 1000uF 16V		
C804	23C44780P20	ELY 100uF 10V		
C805	23S61523F34	ELY 100uF 10V		
C807	23S57422F09	ELY 10uF 16V		
C808	23S61523F12	ELY 10uF 16V		
C809	23C44780P20	ELY 100uF 10V		
Resistors				
R001	06S53330F95	CP 56k ohms 1/8W		
R002	06S53330F77	CP 10k ohms 1/8W		
R003	06S53330F77	CP 10k ohms 1/8W		
R004	06S53330F89	CP 33k ohms 1/8W		
R005	06S53330F65	CP 3.3k ohms 1/8W		
R006	06S53330F65	CP 3.3k ohms 1/8W		
R007	06S53331F02	CP 100k ohms 1/8W		
R009	06S53330F73	CP 6.8k ohms 1/8W		
R010	06S53330F73	CP 6.8k ohms 1/8W		
R011	06S53330F29	CP 100 ohms 1/8W		
R012	06S53331F06	CP 150k ohms 1/8W		
R013	06S53330F21	CP 47 ohms 1/8W		
R015	06S53330F99	CP 82k ohms 1/8W		
R018	06S53330F69	CP 4.7k ohms 1/8W		
R201	06S53330F49	CP 680 ohms 1/8W		

Symbol No.	Part No.	Description		
R316	06S53330F61	CP 2.2k ohms 1/8W		
R317	06S53330F61	CP 2.2k ohms 1/8W		
R318	06S53330F37	CP 220 ohms 1/8W		
R319	06S53330F37	CP 220 ohms 1/8W		
R320	06S53330F61	CP 2.2k ohms 1/8W		
R321	06S53330F77	CP 10k ohms 1/8W		
R328	06S53331F02	CP 100k ohms 1/8W		
R329	06S53331F02	CP 100k ohms 1/8W		
R332	06S53330F85	CP 22k ohms 1/8W		
R333	06S53330F85	CP 22k ohms 1/8W		
R336	06S53330F63	CP 2.7k ohms 1/8W		
R337	06S53330F63	CP 2.7k ohms 1/8W		
R340	06S53330F37	CP 220 ohms 1/8W		
R341	06S53330F37	CP 220 ohms 1/8W		
R344	06S53330F85	CP 22k ohms 1/8W		
R345	06S53330F85	CP 22k ohms 1/8W		
R348	06S53330F37	CP 220 ohms 1/8W		
R349	06S53330F37	CP 220 ohms 1/8W		
R352	06S53330F77	CP 10k ohms 1/8W		
R353	06S53330F77	CP 10k ohms 1/8W		
R601	06S53330F69	CP 4.7k ohms 1/8W		
R602	06S53330F53	CP 1k ohms 1/8W		
R603	06S53331F26	CP 1M ohms 1/8W		
R604	06S53330F67	CP 3.9k ohms 1/8W		
R605	06S53330F29	CP 100 ohms 1/8W		
R606	06S53330F77	CP 10k ohms 1/8W		
R607	06S53330F65	CP 3.3k ohms 1/8W		
R609	06S53331F02	CP 100k ohms 1/8W		
R610	06S53331F02	CP 100k ohms 1/8W		
R614	06S53330F53	CP 1k ohms 1/8W		
R616	06S53330F49	CP 680 ohms 1/8W		
R617	06S53330F77	CP 10k ohms 1/8W		
R618	06S53330F77	CP 10k ohms 1/8W		
R619	06S53330F59	CP 1.8k ohms 1/8W		
R621	06S53330F85	CP 22k ohms 1/8W		
R622	06S53330F37	CP 220 ohms 1/8W		
R624	06S53330F77	CP 10k ohms 1/8W		
R625	06T70072F17	CP 33 ohms 1/4W		
R628	06T70072F17	CP 33 ohms 1/4W		
R629	06T70072F23	CP 56 ohms 1/4W		
R630	06S53330F93	CP 47k ohms 1/8W		
R631	06S53330F83	CP 18k ohms 1/8W		
R632	06S53330F77	CP 10k ohms 1/8W		
R633	06S53330F77	CP 10k ohms 1/8W		
R634	06S53330F77	CP 10k ohms 1/8W		
R637	06S53330F93	CP 47k ohms 1/8W		
R638	06S53330F93	CP 47k ohms 1/8W		
R639	06S53330F93	CP 47k ohms 1/8W		
R641	06S53331F02	CP 100k ohms 1/8W		
R642	06S53331F02	CP 100k ohms 1/8W		

Symbol No.	Part No.	Description		
R643	06S53331F02	CP 100k ohms 1/8W		
R644	06S53331F02	CP 100k ohms 1/8W		
R645	06S53330F77	CP 10k ohms 1/8W		
R647	06S53330F53	CP 1k ohms 1/8W		
R648	06S53330F65	CP 3.3k ohms 1/8W		
R649	06S53330F77	CP 10k ohms 1/8W		
R650	06S53330F77	CP 10k ohms 1/8W		
R652	06S53330F77	CP 10k ohms 1/8W		
R653	06S53330F53	CP 1k ohms 1/8W		
R657	06T70072F51	CP 820 ohms 1/4W		
R662	06S53330F69	CP 4.7k ohms 1/8W		
R663	06S53330F77	CP 10k ohms 1/8W		
R664	06S53330F85	CP 22k ohms 1/8W		
R665	06S53330F93	CP 47k ohms 1/8W		
R801	06S53330F77	CP 10k ohms 1/8W		
R802	06S53330F61	CP 2.2k ohms 1/8W		
R803	06T70072F53	CP 1k ohms 1/4W		
R804	06S53330F61	CP 2.2k ohms 1/8W		
R805	06S53331F10	CP 220k ohms 1/8W		
R806	06S53331F10	CP 220k ohms 1/8W		
R807	06S53330F77	CP 10k ohms 1/8W		
R808	06S53330F77	CP 10k ohms 1/8W		
R811	06S53330F85	CP 22k ohms 1/8W		
R812	06S53330F85	CP 22k ohms 1/8W		
R813	06S53330F87	CP 27k ohms 1/8W		
Crystal				
X601	48T55073F01	4.5 MHZ		
Dolby P.C. Board				
IC				
IC202	51T82309F01	HA12086NT		
Transistors				
Q204 or	48T62967F03 48T64222F02	CP DTC124K CP UN2212		
Capacitors				
C202	23S40657F09	ELY 220uF 10V		
C203	23S61524F31	ELY 0.47uF 50V		
C204	23S57007F04	ELY 0.47uF 50V		
C205	23S57007F11	ELY 22uF 16V		
C206	08S40656F13	MYL 0.01uF		
C207	08S40656F13	MYL 0.01uF		
C208	08S40656F15	MYL 0.015uF		
C209	08S40656F15	MYL 0.015uF		
C210	23S57007F20	ELY 0.68uF 50V		
C211	23S57007F20	ELY 0.68uF 50V		
C212	23S61524F33	ELY 2.2uF 50V		
C213	23S61524F33	ELY 2.2uF 50V		
C214	23S40657F09	ELY 220uF 10V		
Resistors				
R203	06S53330F85	CP 22k ohms 1/8W		
R204	06S53330F85	CP 22k ohms 1/8W		

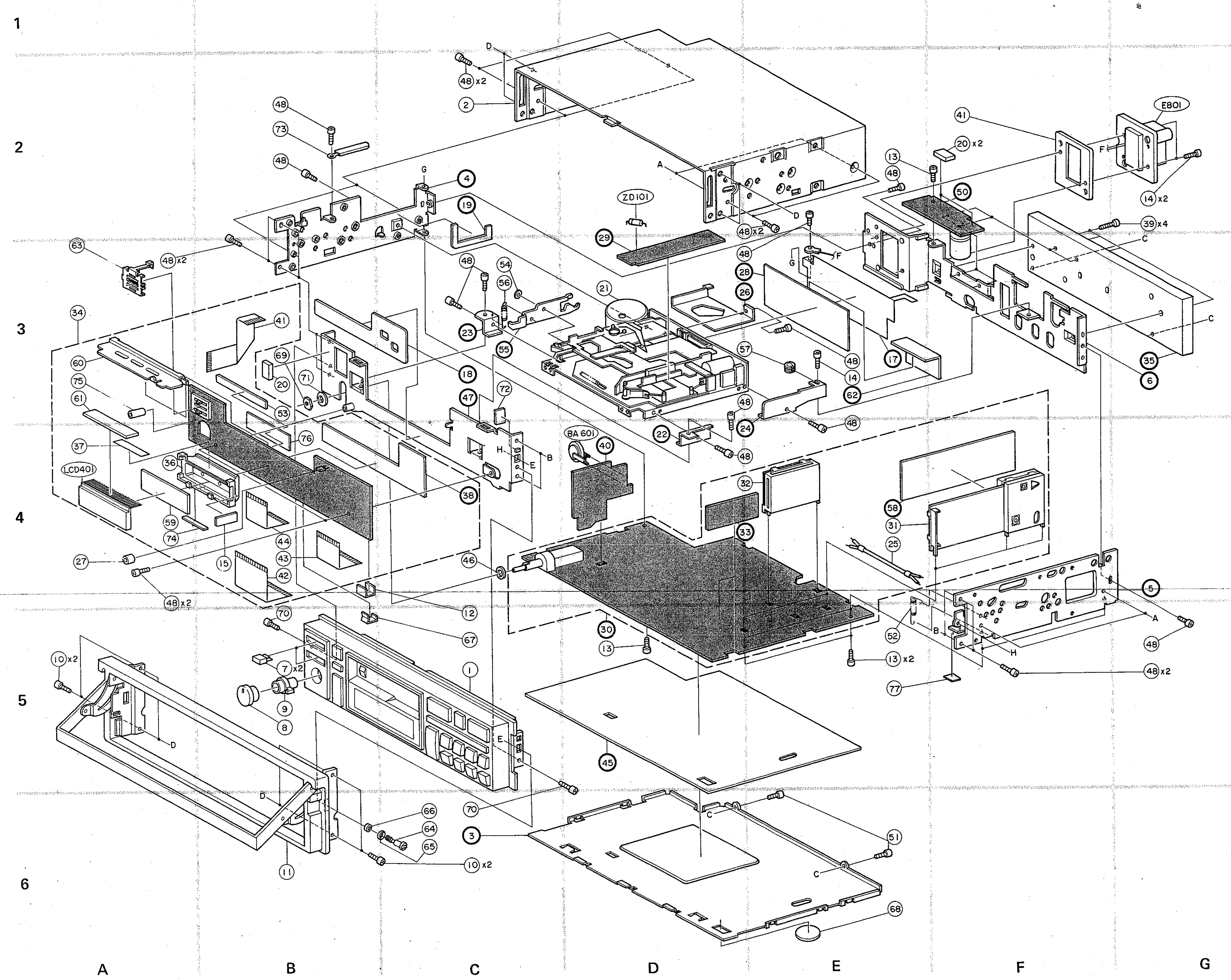
Symbol No.	Part No.	Description		
Front P.C. Board				
LEDs & Lamps				
LD401	48T51833F04	LED, (ORG) AA4524K		
LD402	48T51833F03	LED, (GRN) BG4524K		
LD403	48T51833F03	LED, (GRN) BG4524K		
LD404	48T51833F03	LED, (GRN) BG4524K		
LD405	48T51833F03	LED, (GRN) BG4524K		
LD406	48T51833F03	LED, (GRN) BG4524K		
LD407	48T51833F03	LED, (GRN) BG4524K		
LD408	48T51833F03	LED, (GRN) BG4524K		
LD409	48T51833F03	LED, (GRN) BG4524K		
LD410	48T51833F03	LED, (GRN) BG4524K		
LD411	48T51833F04	LED, (ORG) AA4524K		
LD412	18T82527F01	Slide (GRN) 100kx2		
LD413	18T82527F01	Slide (GRN) 100kx2		
PL401	65T81294F02	Lamp, Pilot 6V-65mA		
PL402	65T81294F02	Lamp, Pilot 6V-65mA		
PL403	65T81294F02	Lamp, Pilot 6V-65mA		
PL404	65T81294F02	Lamp, Pilot 6V-65mA		
PL405	65T81729F02	Lamp, Pilot 12V-50mA		
PL406	65T81729F02	Lamp, Pilot 12V-50mA		
Volume Controls				
VR302 } VR303 }	18T82527F01	Slide(GRN) 100k ohms x 2 (TREB, BASS)		
Switches				
S401	40T70366F01	Tact KHL-10906 (EJECT)		
S402	40T70366F01	Tact KHL-10906 (FF)		
S403	40T70366F01	Tact KHL-10906 (REW)		
S404	40T70366F01	Tact KHL-10906 (ME)		
S405	40T70366F01	Tact KHL-10906 (DN)		
S406	40T70366F01	Tact KHL-10906 (UP)		

Symbol No.	Part No.	Description		
S407	4OT70366F01	Tact KHL-10906 (SEEK)		
S408	4OT70366F01	Tact KHL-10906 (PAUSE)		
S409	4OT70366F01	Tact KHL-10906 (M6)		
S410	4OT70366F01	Tact KHL-10906 (M5)		
S411	4OT70366F01	Tact KHL-10906 (M4)		
S412	4OT70366F01	Tact KHL-10906 (M3)		
S413	4OT70366F01	Tact KHL-10906 (M2)		
S414	4OT70366F01	Tact KHL-10906 (M1)		
S415	4OT70366F01	Tact KHL-10906 (BAND)		
S416	4OT70366F01	Tact KHL-10906 (ST)		
S417	4OT70366F01	Tact KHL-10906 (DX)		
S418	4OT70366F01	Tact KHL-10906 (LOUD/R.MON)		
Resistors				
R401	06T70072F21	CP 47 ohms 1/4W		
R402	06T70072F21	CP 47 ohms 1/4W		
R405	06T70072F47	CP 560 ohms 1/4W		
R406	06T70072F47	CP 560 ohms 1/4W		
R407	06T70072F47	CP 560 ohms 1/4W		
R408	06T70072F47	CP 560 ohms 1/4W		
R409	06T70072F51	CP 820 ohms 1/4W		
R410	06T70072F47	CP 560 ohms 1/4W		
Tone P.C. Board				
IC				
IC301	51T73718F01	NJM4560M		
Capacitors				
C301	08T52448F03	PP 390P		
C302	08T57705F71	MYL 0.022uF		
C303	08T52448F03	PP 390P		
C304	08T57705F71	MYL 0.022uF		
C305	08T52448F01	PP 330P		
C306	08T57705F81	MYL 0.15uF		
C307	08T52448F01	PP 330P		
C308	08T57705F81	MYL 0.15uF		
C309	23T43247F05	ELY 1uF 50V		
C310	23S61523F29	ELY 1uF 50V		
C311	23S61523F12	ELY 10uF 16V		
C327	08S53332F14	CP 18P		
C328	08S53332F14	CP 18P		
Resistors				
R301	06S53330F83	CP 18k ohms 1/8W		
R302	06S53330F83	CP 18k ohms 1/8W		
R303	06S53330F83	CP 18k ohms 1/8W		
R304	06S53330F83	CP 18k ohms 1/8W		
R305	06S53330F71	CP 5.6k ohms 1/8W		
R306	06S53330F71	CP 5.6k ohms 1/8W		
R307	06S53330F71	CP 5.6k ohms 1/8W		
R308	06S53330F71	CP 5.6k ohms 1/8W		
R309	06S53330F91	CP 39k ohms 1/8W		
R310	06S53330F91	CP 39k ohms 1/8W		
R311	06S53331F26	CP 1M ohms 1/8W		
R312	06S53331F26	CP 1M ohms 1/8W		
R314	06S53330F05	CP 10 ohms 1/8W		
R315	06S53330F05	CP 10 ohms 1/8W		
Power Amp. P.C. Board				
IC				
IC501	51T82314F01	AN7171K		
Transistors				
Q501	48T62967F09	CP DTC114T		
or	48T64222F05	CP UN2215		
Q502	48T62967F09	CP DTC114T		
or	48T64222F05	CP UN2215		
Capacitors				
C501	08S53332F37	CP 1500P		
C502	08S53332F37	CP 1500P		
C503	08T57705F67	MYL 0.01uF		
C504	08T57705F67	MYL 0.01uF		
C505	23C42170G37	ELY 3300uF 16V		
C506	08S53332F57	CP 0.1uF		
C507	23S41198U34	ELY 100uF 16V		
C508	23S40657F03	ELY 100uF 6.3V		
C509	23S40657F03	ELY 100uF 6.3V		
C510	08T57851F15	TF 0.15uF		
C511	08T57851F15	TF 0.15uF		
C512	08T57851F15	TF 0.15uF		
C513	08T57851F15	TF 0.15uF		
Resistors				
R501	06S53330F36	CP 200 ohms 1/8W		
R502	06S53330F36	CP 200 ohms 1/8W		
R504	06S53331F40	CP 2.2 ohms 1/8W		
R505	06S53331F40	CP 2.2 ohms 1/8W		
R506	06S53331F40	CP 2.2 ohms 1/8W		
R507	06S53331F40	CP 2.2 ohms 1/8W		
R508	06S53330F41	CP 330 ohms 1/8W		
R509	06S53330F41	CP 330 ohms 1/8W		
R510	06S53330F41	CP 330 ohms 1/8W		
R511	06S53330F41	CP 330 ohms 1/8W		
R512	06S53330F37	CP 220 ohms 1/8W		
R513	06S53330F37	CP 220 ohms 1/8W		
Control P.C. Board				
ICs				
IC701	51T71799F01	71799F01		
IC702	51T71802F01	71802F01		
Transistors				
Q701	48T52547F02	2SB793A		
Q702	48T62967F03	CP DTC124K		

Symbol No.	Part No.	Description		
Diodes				
D701	48T52445F01	CP MA151WA		
D702	48T52446F01	CP MA151WK		
ZD701	48T68697F54	Zener HZS16EB1		
ZD702	48T62934F29	Zener RD6.8MB3		
Capacitors				
C701	23T82482F02	ELY 100uF 16V		
C702	23S61523F12	ELY 10uF 16V		
C703	08T50579F09	TF. 0.047uF		
C704	23S61523F15	ELY 47uF 16V		
C705	08S53332F53	CP 0.033uF		
C706	08S53332F47	CP 0.01uF		
C707	08S53332F57	CP 0.1uF		
Resistors				
R701	06S81094F09	MF 4.7 ohms 1/2W		
~~R702~~	~~06S81094F65~~	~~MF 1k ohms 1/2W~~		
R703	06S53330F77	CP 10k ohms 1/8W		
R704	06S81094F05	MF 3.3 ohms 1/2W		
R706	06S53330F77	CP 10k ohms 1/8W		
R708	06S64995F94	CP 51k ohms 1/16W		
R709	06S53330F85	CP 22k ohms 1/8W		
R710	06S53330F71	CP 5.6k ohms 1/8W		
R711	06S53330F29	CP 100 ohms 1/8W		
R712	06S53331F12	CP 270k ohms 1/8W		
R713	06S53331F31	CP 2.7M ohms 1/8W		
Reverse P.C. Board				
PT701	51T63433F01	Sensor, Photo		
PT702	51T63433F01	Sensor, Photo		
Miscellaneous Parts				
E801	01T82521F01	ASSY, Connector QRB(B) 20P		
LCD401	65T82175F01	LCD, Display LU1303		
BA601	60T83249F01	Battery Lithium BR2032		
M701	01V71800F20	ASSY Motor		
M702	01V83500F82	ASSY RF Motor		
HD701	88T74470F01	Head		
S701	40T52216F01	Switch, Micro (Pack In)		
S702	40T60329F02	Switch, Leaf (Eject, Pack In)		
S704	40T63432F01	Switch, Slide (For/Rev.)		
S705	40T71025F03	Switch, Detector (Position)		
S706	40T71025F03	Switch, Detector (Metal)		
SD701	01A63213F01	ASSY Program Solenoid		
SD702	01A63215F01	ASSY Eject Solenoid		
SD703	01A63212F01	ASSY Play Solenoid		
SD704	01A63214F01	ASSY RF Solenoid		

Exploded View (Cabinet)

(7284M/L Model only)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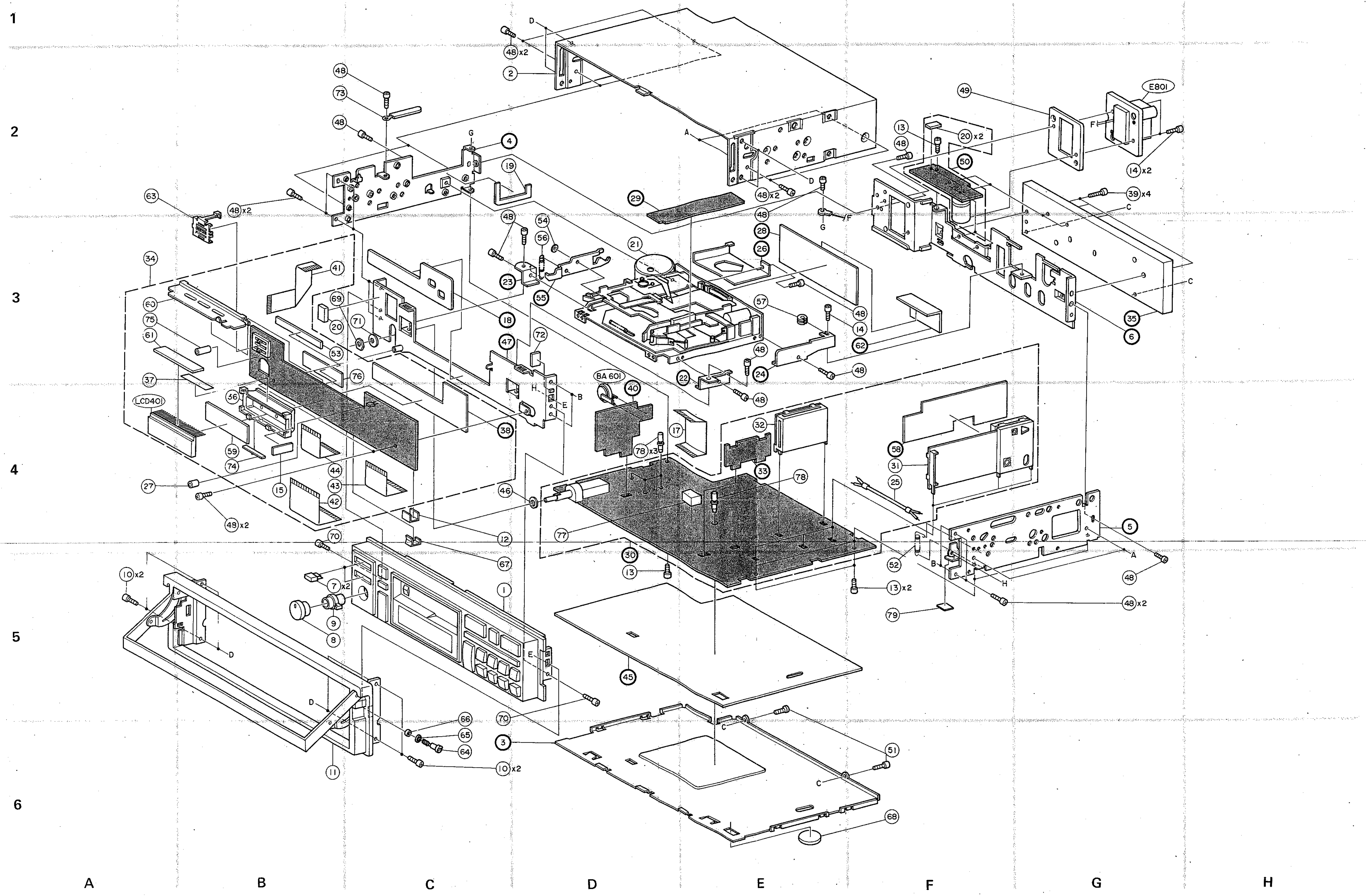
NOTE: ● **7283M Model Only,**
■ **7283L Model Only,**
Others Common

Exploded View (Cabinet)

(7284E Model only)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Cabinet Parts List

(7284M/L Model only)

NOTE: The parts without part number are not supplied.

Symbol No.	Index	Part No.	Description		
● 1	5C	13D82147F05	Assy., Nose Piece		
■ 1	5C	13D82147F06	Assy., Nose Piece		
2	2C	15C82167F02	Cover, Top		
7	5B	36B82169F01	Knob, Slide A		
8	5B	36A82170F01	Knob, Control (Front)		
9	5B	36A82171F01	Knob, Control (Back)		
10		03S44205G34	Screw, Pan (M2.6x5)		
11	6B	07C82176F01	Bracket, Handol Assy.		
12	5C	07A90023F01	Bracket P.C. Board		
13		03S44205G48	Screw, Pan (M2.6x5)		
14		03S44205G33	Screw, Pan (M2.6x8)		
15	4B	14S81481F32	Insulator, Cover		
20	3B	75S62361F20	Cushion, Rubber		
21	3D	01V83200F58	Cassette GZ75E23A, Deck		
25	4E	30T84798F01	Shield Wire		
27	4A	43A62458F03	Bushing, Cover		
31	4E	77C82280F01	FM Tuner MB1A4020 (FE001)		
32	4E	77T68552F01	AM Tuner TFAD3L113A (FE101)		
34	3A	01V83500F08	Assy., Front P.C.Board		
36	4A	15B82530F01	Case, LCD		
37	4A	26A83087F02	Reflector, Door		
39		03S71677F09	Screw, Pan (M2.6x12)		
41	3B	30T82417F01	Flat, Cable 12P		
42	4B	30T82524F01	Wire, Parallel 15P		
43	4B	30T82524F04	Wire, Parallel 19P		
44	4B	30T82524F03	Wire, Parallel 14P		
46	4C	04A43020G05	Washer, Flat (M9.2)		
48		03S44205G07	Screw Pan (M2.6x5)		
49	2F	07A90335F01	Bracket, Spacer Connector		
51		03S71677F02	Screw, Pan (M2.6x6)		
52	4E	41A84825F01	Spring, Bracket Switch		
53	3B	26A90329F01	Shield, Plate		
54	3C	04A41345P04	Washer, Lock (M2.6)		
56	3C	41A84062F01	Spring, Lever		
57	3E	43A68965F01	Spacer, Deck		
59	4A	43A83783F01	Spacer, LCD		
60	3A	07A84095F01	Bracket Spacer P.C.Board		
61	3A	14S81482F20	Insulator, Cover		
63	3A	07A84744F01	Bracket, Shield (VK)		
64	6C	46A90021F01	Stud, Pin		
65	6C	46A90021F02	Stud, Ring		
66	6C	04S40075G08	Washer, Polyslider (M2.6)		
67	5C	41A90022F01	Spring, P.C.Board		
68	6E	54S60912F16	Label, Round-STD		
69	3B	02S40000G20	Nut, Hex (M9)		
70	6C	03S44205G41	Screw, Pan (M2.6x4)		
71	3B	04S40070G28	Washer, Flat (M9.1)		
72	3C	14S81481F25	Insulator, Cover		
73	2B	29C41045P02	Lug, Wrap Alound		
74	4A	14S81482F26	Insulator, Cover		
75	3A	43A84442F02	Spacer, Lamp		
76	4B	14S81482F32	Insulator, Cover		
77	5E	14S81481F36	Insulator, Cover		

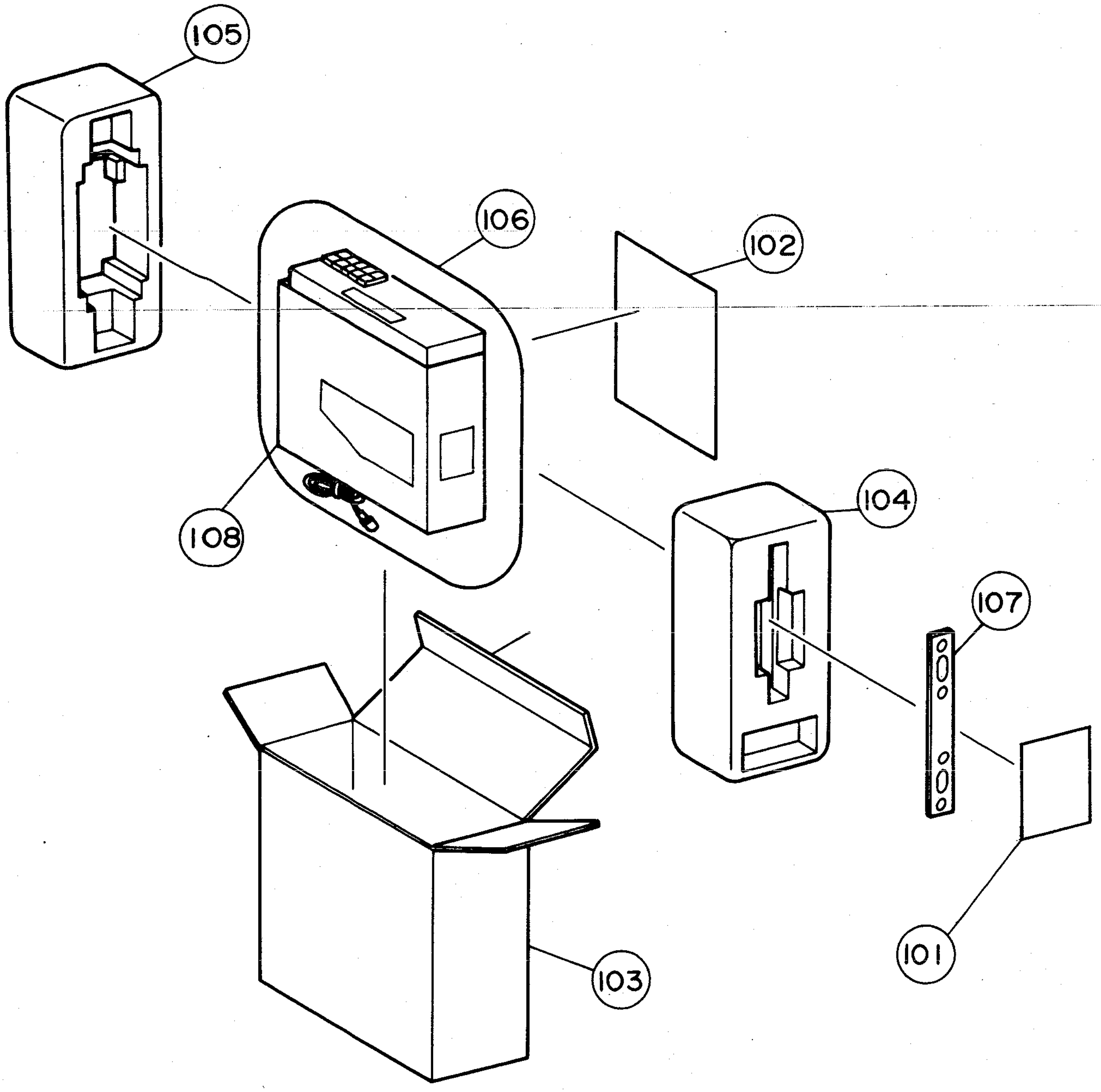
NOTE: ● 7284M Model Only, ■ 7284L Model Only, Others Common

(7284E Model only)

Symbol No.	Index	Part No.	Description		
1	5C	13D90680F09	Assy., Nose, Piece		
2	2C	15C82167F02	Cover, Top		
7	5B	36B82169F01	Knob, Slide A		
8	5B	36A82170F01	Knob, Control (Front)		
9	5B	36A82171F01	Knob, Control (Back)		
10		03S44205G34	Screw, Pan (M2.6x5)		
11	6B	07C82176F01	Braket, Handol Assy.		
12	4C	07A90023F01	Bracket P.C. Board		
13		03S44205G48	Screw, Pan (M2.6x5)		
14		03S44205G33	Screw, Pan (M2.6x8)		
15	4B	14S81481F32	Insulator, Cover		
17	4D	01T73956F02	Flat, Cable 18P		
19	2C	14A90278F01	Insulator, Side(M)		
20	2F	75S62361F20	Cushion, Rubber		
21	3D	01V83200F58	Cassette GZ75E23A Deck		
25	4F	01T83932F01	Assy., Shield Wire		
27	4A	43A62458F03	Bushing, Cover		
31	4F	77C82786F01	FM Tuner MB1A4020 (FE001)		
32	4E	77T82352F01	AM Tuner TFAD3L113A (FE101)		
34	3A	01V83200F64	Assy., Front P.C.Board		
36	4B	15B82530F01	Case, LCD		
37	3A	26A83087F02	Reflector, Door		
39		03S71677F09	Screw, Pan (M2.6x12)		
41	3B	30T82417F01	Flat, Cable 12P		
42	4B	01T67838F07	Flat, Cable 18P		
43	4B	01T67838F05	Flat, Cable 16P		
44	4B	01T67838F06	Flat, Cable 14P		
46	4C	04A43020G05	Washer, Flat (M9.2)		
48		03S44205G07	Screw, Pan (M2.6x5)		
49	2F	07A90335F01	Bracket, Spacer Connector		
51		03S71677F02	Screw, Pan (M2.6x6)		
52	5F	41A84825F01	Spring, Bracket Switch		
53	3B	26A90329F01	Shield, Plate		
54	3D	04A41345P04	Washer, Lock (M2.6)		
56	3D	41A84062F01	Spring, Lever		
57	3E	43A68965F01	Spacer, Deck		
59	4B	43A83783F01	Spacer, LCD		
60	3A	07A84095F01	Bracket, Spacer P.C.Board		
61	3A	14S81482F20	Insulator, Cover		
63	2A	07A84744F01	Bracket, Shield (VK)		
64	6C	46A90021F01	Stud, Pin		
65	6C	46A90021F02	Stud, Ring		
66	5C	04S40075G08	Washer, Polyslider (M2.6)		
67	5C	41A90022F01	Spring, P.C. Board		
68	6F	54S60912F16	Label, Round-STD		
69	3B	02S40000G20	Nut, Hex (M9)		
70		03S44205G41	Screw, Pan (M2.6x4)		
71	3C	04S40070G28	Washer, Flat (M9.1)		
72	3D	14S81481F25	Insulator, Cover		
73	2B	29C41045P02	Lug, Wrap Alound		
74	4B	14S81482F26	Insulator, Cover		
75	3A	43A84442F02	Spacer, Lamp		
76	3C	14S81482F32	Insulator, Cover		
77	4D	75S72374F82	Cushion, Rubber		
78	4D	09T84840F01	Lug, Style 18mm		
79	4F	14S81481F36	Insulator, Cover		

Note: The parts without part numbers are not supplied.

Packing Method View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Packing Parts List

(7284M/L Model only)

Symbol No.	Part No.	Description			Symbol No.	Part No.	Description		
101	01V84200F33	Assy., Kit Installation			■ 103	56S80201F49	Carton, Packing (Individual)		
101-1	02B47353F01	Nut Hex (M5)			104	56D82187F01	Tray, Packing (L)		
101-2	03S40012G66	Screw, Tapping (M5x20)			105	56D82187F02	Tray, Packing (R)		
101-3	03B44963F03	Bolt, Hex W/Washer (M5x10)			106	56B40990T36	Sack, Polyethylene		
101-4	46A42363F01	Stud, Bolt			107	07B64552F01	Bracket, Strap Receiver		
101-5	03A40155F01	Bolt, Hex (M5x8)			● 108	01V91200F65	Assy., Case Mother		
101-6	65A40348G01	Fuse 5A (Battery Lead)			■ 108	01V91100F73	Assy., Case Mother		
101-7	65A40348G04	Fuse 3A (+B Ignition Lead)			108-1	15D82173F01	Case Mother		
101-8	03A84814F01	Screw, Bind (M2.6x20)			● 108-2	01T82520F02	Assy., Connector QRB(A)20P (E801)		
101-9	43A58272F01	Spacer			■ 108-2	01T82520F01	Assy., Connector QRB(A)20P (E801)		
● 102	68P81707F52	Owners, Manual 7284M			108-3	14S71058F03	Insulator, Cover		
■ 102	68P81707F51	Owners, Manual 7284L			108-4	03S44205G33	Screw, Pan (M2.6x8)		
● 103	56S80201F48	Carton, Packing (Individual)			108-5	03S44205G07	Screw, Pan (M2.6x5)		

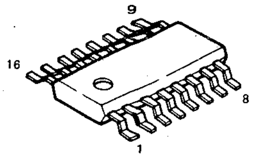
NOTE: ● 7284M Model Only, ■ 7284L Model Only, Others Common

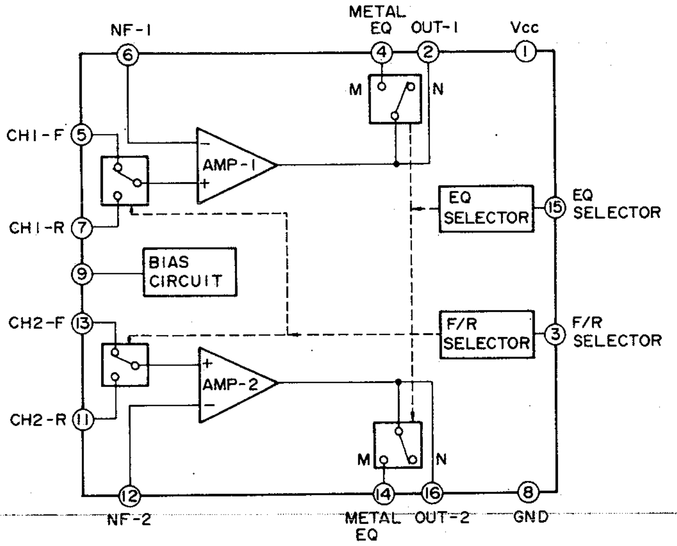
(7284E Model only)

Symbol No.	Part No.	Description			Symbol No.	Part No.	Description		
101	01V84200F72	Assy., Kit Installation			105	56D82187F02	Tray, Packing (R)		
101-1	02B47353F01	Nut, Hex (M5)			106	56B40990T36	Sack, Polyethylene		
101-2	03S40012G66	Screw, Tapping, (M5x20)			107	07B64552F01	Bracket, Strap Receiver		
101-3	03B44963F03	Screw, Bolt Hex W/Washer (M5x10)			108	01V91100F73	Assy., Case Mother		
101-4	46A42363F01	Stud, Bolt			108-1	15D82173F01	Case Mother		
101-5	03A40155F01	Bolt Hex (M5x8)			108-2	01T82520F01	Assy., Connector QRB(A) 20P		
101-6	65A40348G01	Fuse, 5A (Battery Lead)			108-3	14S71058F03	Insulator Cover		
101-7	65A40348G04	Fuse, 3A (+B Ignition Lead)			108-4	03S44205G33	Screw, Pan (M2.6x8)		
101-8	03A84814F01	Screw, Bind (M2.6x20)			108-5	03S44205G07	Screw, Pan (M2.6x5)		
101-9	43A58272F01	Spacer							
102	68P81707F56	Owners, Manual 7284E							
103	56S80201F53	Carton, Packing (Individual)							
104	56D82187F01	Tray, Packing (L)							

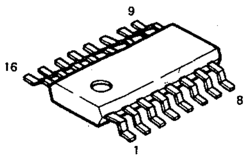
Semiconductors Leads Identifications

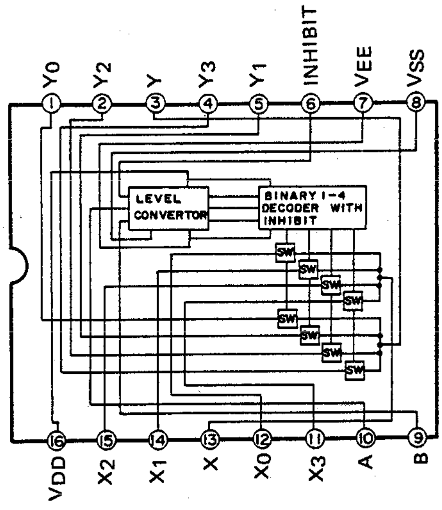
TA7705F: IC101



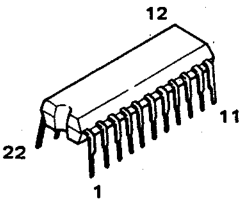

METAL EQ
OUT-1
Vcc
NF-1
M
N
CH1-F
AMP-1
EQ SELECTOR
EQ SELECTOR
CH1-R
BIAS CIRCUIT
CH2-F
F/R SELECTOR
F/R SELECTOR
AMP-2
CH2-R
M
N
NF-2
METAL EQ
OUT-2
GND
1
2
3
4
5
6
7
8
9
11
12
13
14
15
16

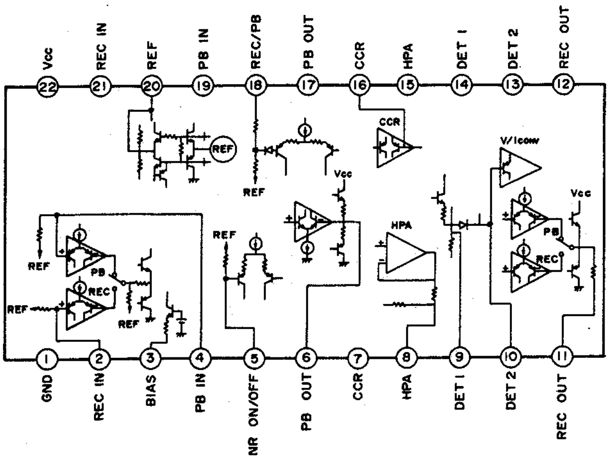
uPD4052BG: IC201(7284E Model only)



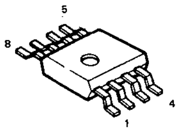

Y0
Y2
Y
Y3
Y1
INHIBIT
VEE
VSS
LEVEL CONVERTOR
BINARY 1-4 DECODER WITH INHIBIT
SW
VDD
X2
X1
X
X0
X3
A
B
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

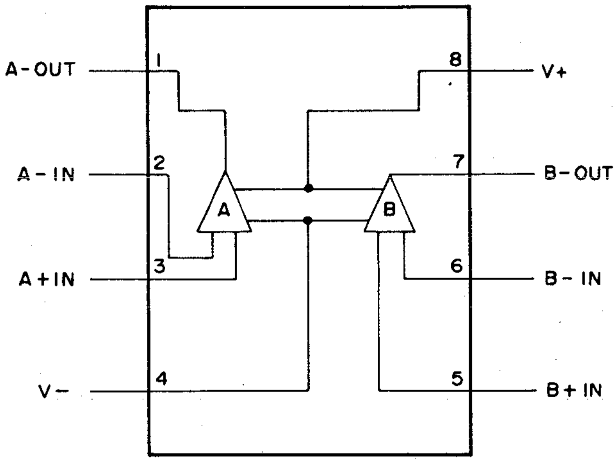
HA12086NT: IC201(7284M/L Model only)
IC202(7284L Model only)



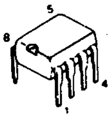

Vcc
REC IN
REF
PB IN
REC/PB
PB OUT
CCR
HPA
DET 1
DET 2
REC OUT
REF
CCR
V/Iconv
Vcc
REF
REF
HPA
PB
REC
REF
PB
REC
REF
REF
GND
REC IN
BIAS
PB IN
NR ON/OFF
PB OUT
CCR
HPA
DET 1
DET 2
REC OUT
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

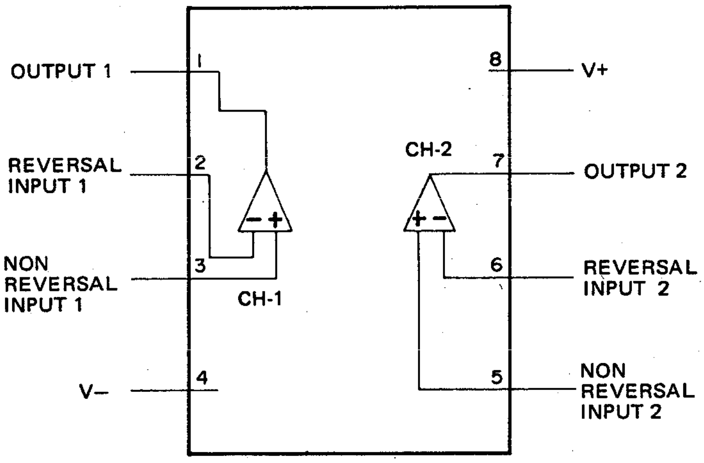
NJM4560M: IC301



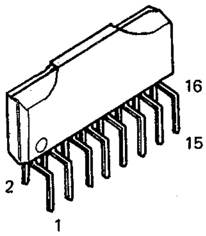

A-OUT
A-IN
A+IN
V−
V+
B-OUT
B-IN
B+IN
1
2
3
4
5
6
7
8
A
B

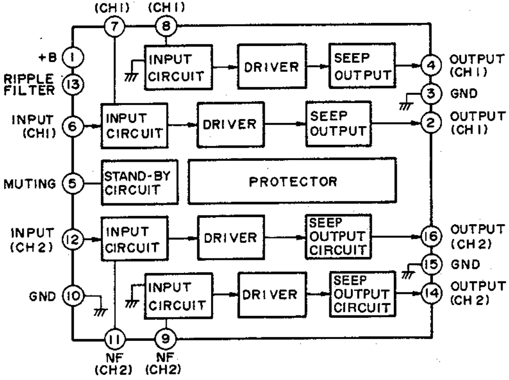
M5238P: IC302



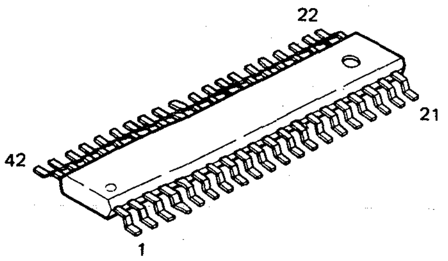

OUTPUT 1
REVERSAL INPUT 1
NON REVERSAL INPUT 1
V−
V+
OUTPUT 2
REVERSAL INPUT 2
NON REVERSAL INPUT 2
CH-1
CH-2
1
2
3
4
5
6
7
8
−
+
+
−

AN7171K: IC501



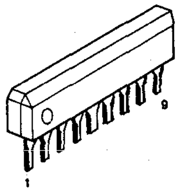

NF (CH1)
NF (CH1)
+B
RIPPLE FILTER
INPUT (CH1)
MUTING
INPUT (CH2)
GND
NF (CH2)
NF (CH2)
OUTPUT (CH1)
GND
OUTPUT (CH1)
OUTPUT (CH2)
GND
OUTPUT (CH2)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
INPUT CIRCUIT
DRIVER
SEEP OUTPUT
INPUT CIRCUIT
DRIVER
SEEP OUTPUT
STAND-BY CIRCUIT
PROTECTOR
INPUT CIRCUIT
DRIVER
SEEP OUTPUT CIRCUIT
INPUT CIRCUIT
DRIVER
SEEP OUTPUT CIRCUIT

71799F01: IC701(GZ75E23A)



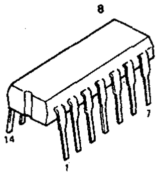
Pin No.	Function	Pin No.	Function	Pin No.	Function
1	V_{CC2}	15	PROG	29	RUN DET
2	O-PLY	16	MS	30	FF
3	O-PROG	17	EJECT	31	REW
4	PGND	18	AUTO CUE	32	O-MS-FAST
5	PGND	19	BI	33	O-MUTE
6	PGND	20	ARE	34	RFM CONT
7	PGND	21	KEY OFF	35	PGND
8	PGND	22	POSITION SW	36	PGND
9	O-FAST	23	PACK IN	37	PGND
10	O-MS	24	OSC	38	PGND
11	ARE-IND	25	V_{CC1}	39	PGND
12	O-MOTOR	26	LGND	40	O-EJECT
13	RF-SW	27	$\overline{F}$/R	41	RFM1
14	PLAY	28	PACK DOWN	42	RFM2

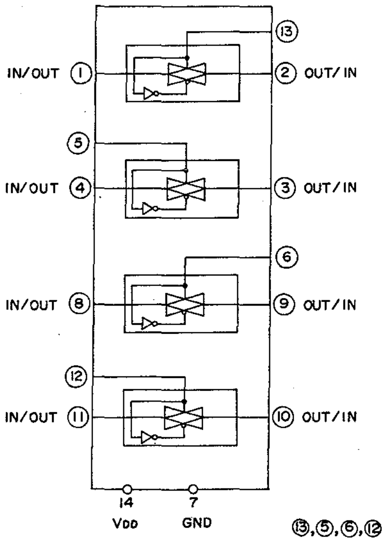
71802F01: IC702(GZ75E23A)



Pin No.	Function
1	OSC
2	INDEX SCAN
3	DC COUPLE
4	MSF
5	GND
6	$\overline{\text{O.AUTO CUE}}$
7	$\overline{\text{MB}}$
8	V_{CC}
9	AUDIO IN

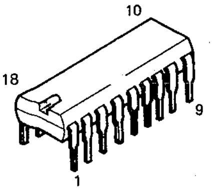
TC4066BP: IC602(7284E Model only)
IC603(7284M Model only)
IC604,605(7284M/L Model only)
IC503(7284L Model only)

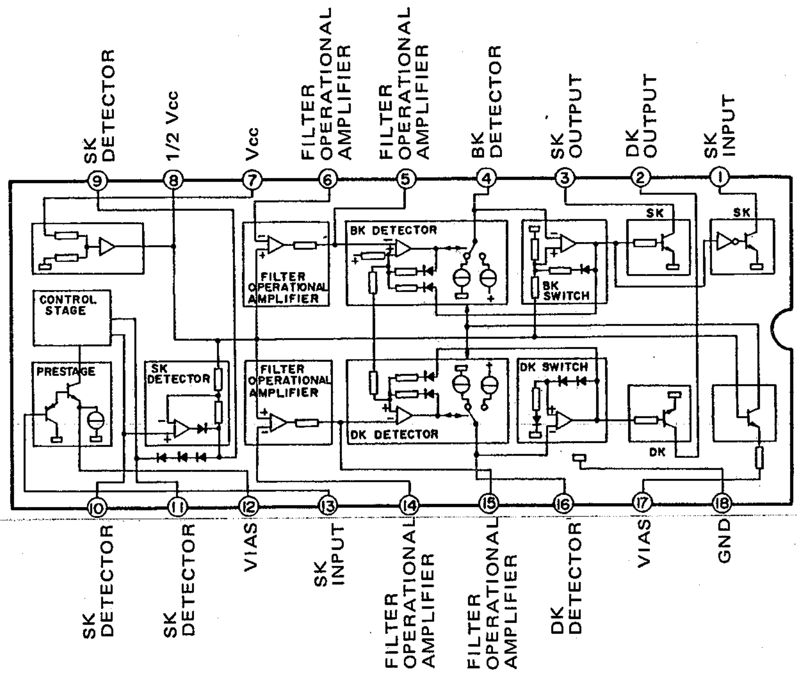



⑬
IN/OUT ①
② OUT/IN
⑤
IN/OUT ④
③ OUT/IN
⑥
IN/OUT ⑧
⑨ OUT/IN
⑫
IN/OUT ⑪
⑩ OUT/IN
14
VDD
7
GND

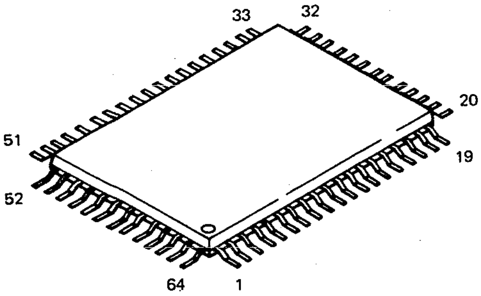
⑬,⑤,⑥,⑫ ; Control IN

TDA1579: IC601(7284M Model only)



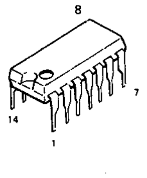

SK DETECTOR ⑨
1/2 Vcc ⑧
Vcc ⑦
FILTER OPERATIONAL AMPLIFIER ⑥
FILTER OPERATIONAL AMPLIFIER ⑤
BK DETECTOR ④
SK OUTPUT ③
DK OUTPUT ②
SK INPUT ①
CONTROL STAGE
PRESTAGE
SK DETECTOR
FILTER OPERATIONAL AMPLIFIER
FILTER OPERATIONAL AMPLIFIER
BK DETECTOR
DK DETECTOR
BK SWITCH
DK SWITCH
SK
SK
DK
⑩ SK DETECTOR
⑪ SK DETECTOR
⑫ VIAS
⑬ SK INPUT
⑭ FILTER OPERATIONAL AMPLIFIER
⑮ FILTER OPERATIONAL AMPLIFIER
⑯ DK DETECTOR
⑰ VIAS
⑱ GND

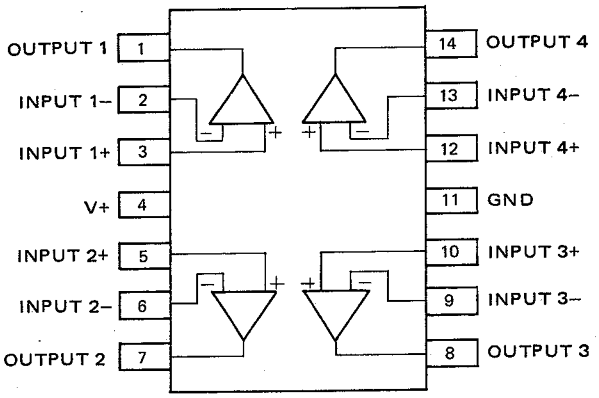
81985F02: IC606(7284L Model only)
81985F04: IC606(7284M/L Model only)
81985F05: IC601(7284E Model only)


33
32
20
19
51
52
64
1

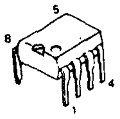
Pin No.	Function	Pin No.	Function	Pin No.	Function	Pin No.	Function
1	NO	17	PA1/FMIF	33	S22	49	S6/KS6
2	EO1	18	PA2/SI	34	S21	50	S5/KS5
3	EO2	19	PA3/$\overline{\text{SCK}}$	35	S20	51	S4/KS4
4	GND	20	PB0/SO	36	S19	52	S3/KS3
5	AM	21	PB1	37	S18	53	S2/KS2
6	FM	22	PB2	38	S17	54	S1/KS1
7	CE	23	PB3	39	S16	55	S0/KS0
8	GND	24	XO	40	S15/KS15	56	COM0
9	PD1	25	XI	41	S14/KS14	57	COM1
10	PD2	26	VDD	42	S13/KS13	58	VDD
11	PD3	27	CGP	43	S12/KS12	59	K3
12	PC0	28	S27/PL3	44	S11/KS11	60	K2
13	PC1	29	S26/PL2	45	S10/KS10	61	K1
14	PC2	30	S25/PL1	46	S9/KS9	62	K0
15	PC3	31	S24/PL0	47	S8/KS8	63	AD
16	PA0/AMIF	32	S23	48	S7/KS7	64	$\overline{\text{INT}}$

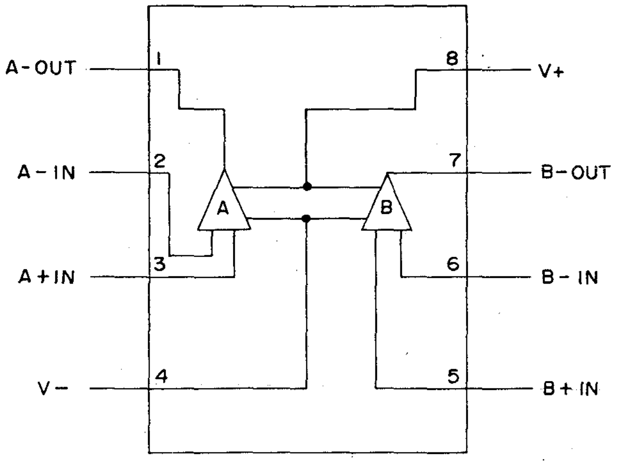
NJM2902N: IC602(7284M Model only)



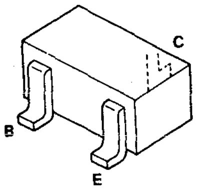

OUTPUT 1 1
INPUT 1– 2
INPUT 1+ 3
V+ 4
INPUT 2+ 5
INPUT 2– 6
OUTPUT 2 7
14 OUTPUT 4
13 INPUT 4–
12 INPUT 4+
11 GND
10 INPUT 3+
9 INPUT 3–
8 OUTPUT 3

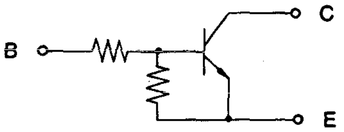
NJM4560D: IC801



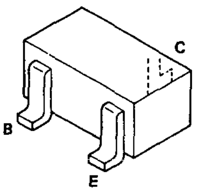


UN2212	Q001,204,301,302,609,615-617 Q620,623,802,805,806 (7284E Model only) Q309,611,629,807,813 (7284M/L Model only) Q604,605 (7284M Model only)
DTC124K	Q001,101,609,620 Q204,301,302,610,615-617,623,802,805,806 (7284E Model only) Q203,309,611,629,807,813 (7284M/L Model only) Q702 (GZ75E23A) Q636,501,502 (7284L Model only) Q604,805,631,633,638,644, (7284M Model only)
DTC144W	Q624 (7284E Model only) Q640,643 (7284M/L Model only) Q607,608 (7284M Model only)

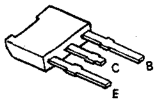




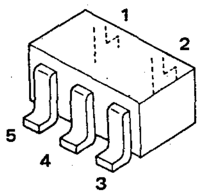
2SC3142	Q002 (7284M/L Model only) Q004 (7284E Model only)
2SC2412K	Q002,603,604,611,619 (7284E Model only) Q630 (7284M/L Model only)
2SA1037K	Q003,605-608 (7284E Model only)
2SD601A	Q003,602 (7284M Model only)
2SD1328	Q814 (7284M/L Model only) Q807 (7284E Model only)

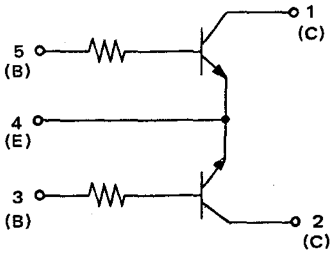


2SC4038QRS	Q201,618 (7284E Model only)
2SB1278	Q801 (7284E Model only)
2SD1860	Q803,804 (7284E Model only)

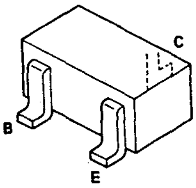


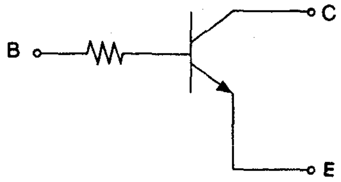
FMG4	Q301(7284M/L Model only)



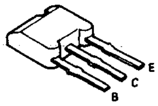


DTC343T	Q303 ,304 (7284E Model only)
DTC114T	Q610 ,618, (7284M/L Model only) Q501 ,502,614 (7284E Model only)
UN2215	Q501 ,502,614 (7284E Model only)
DTC363TK	Q310 ,311 (7284M/L Model only)

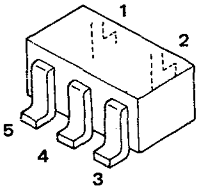


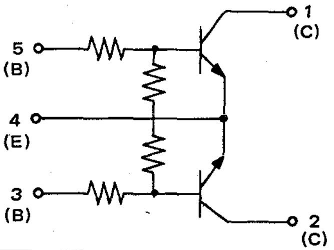


2SD1330	Q303 ,304 (7284M Model only) Q305 ,306 (7284M/E Model only) Q307 ,308 (7284E Model only) Q312 ,313 (7284M/L Model only)
2SB793A	Q701 (GZ75E23A)
2SD661	Q601 ,602 (7284E Model only) Q623 ,624,627,628 (7284M/L Model only)
2SB641	Q621 (7284M/L Model only)
2SD638	Q801 (7284M/L Model only) Q802 (7284M/L Model only)
2SD973A	Q804 (7284M/L Model only)
2SD636	Q204 ,810 (7284M/L Model only)

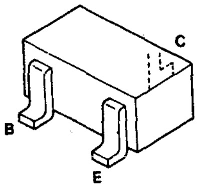


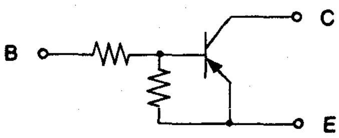
FMG1	Q307 ,612,614,616 (7284M/L Model only)
FMG2	Q622 (7284M/L Model only)



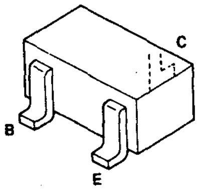


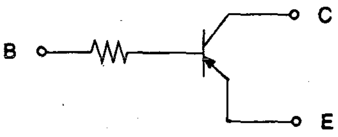
DTA114	Q612,613 (7284E Model only) Q634,642,645 (7284M/L Model only)
UN2111	Q612,613 (7284E Model only)





DTA114T	Q637 (7284M Model only)





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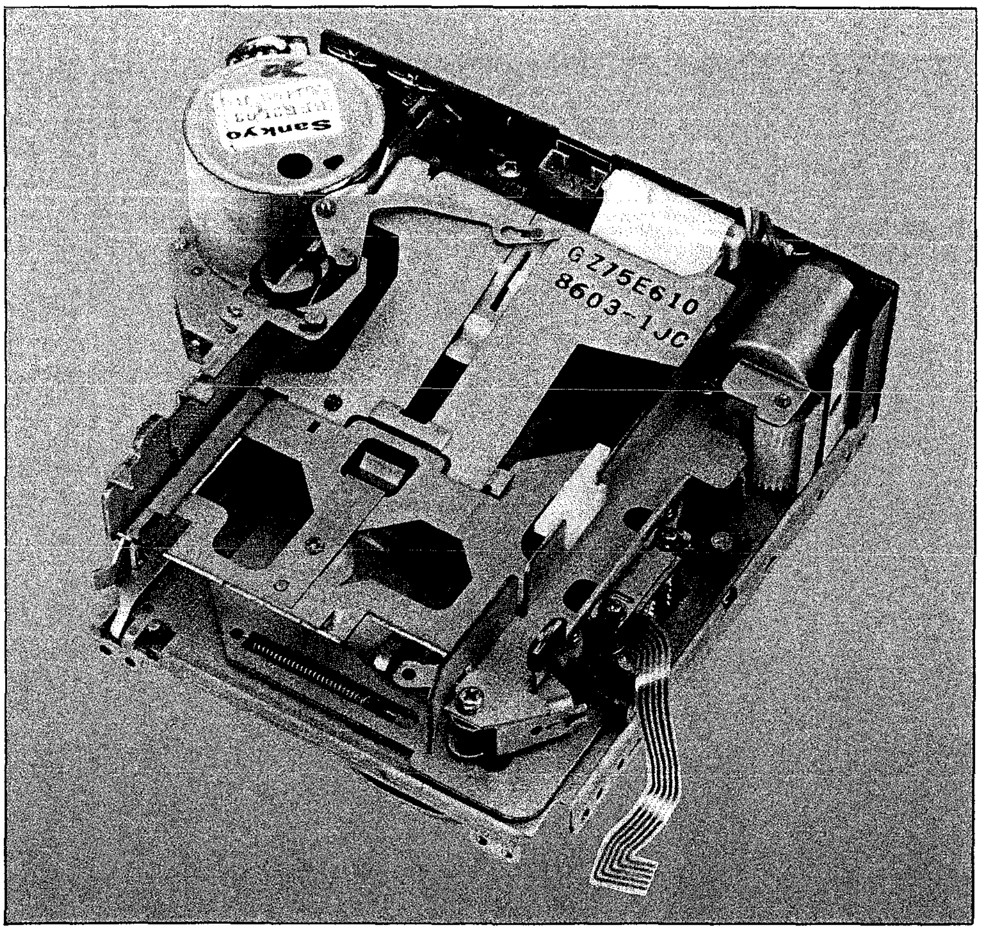
ALPINE SERVICE MANUAL

Exploded View & Parts List For Cassette Deck Mechanism

ADDENDUM & REVISED


Sankyo
GZ75E610
8603-1JC

GZ SERIES

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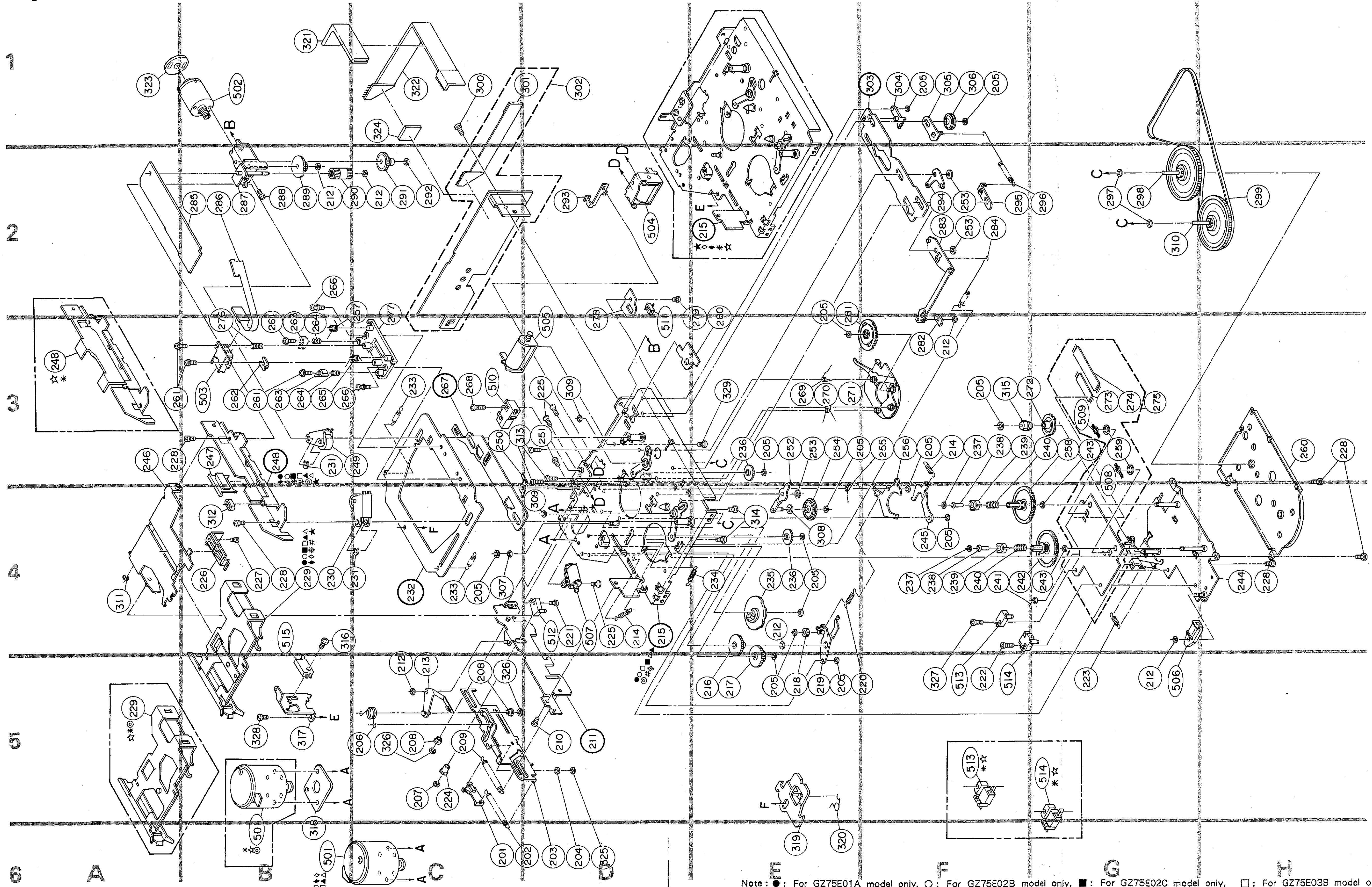
Contents

Exploded View (Cassette Deck) . . . . 3 to 4
Parts List . . . . 5 to 12
Mechanical Parts Replacement . . . . 13 to 19

Exploded View (Cassette Deck)


1
2
3
4
5
6
A
B
C
D
E
F
G
H
323
502
321
322
324
300
301
302
285
286
287
288
289
212
290
291
292
293
504
D
215
303
304
205
305
306
297
298
299
310
283
253
284
294
295
296
248
266
276
261
263
264
257
277
505
278
511
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503
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265
233
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510
225
309
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274
275
315
509
246
228
247
231
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250
313
251
236
252
254
255
256
214
237
238
239
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243
259
260
312
308
314
245
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514
223
506
208
326
211
206
209
210
328
317
207
224
50
318
501
201
202
203
204
325
319
320

Note : ●: For GZ75E01A model only, ○: For GZ75E02B model only, ■: For GZ75E02C model only, □: For GZ75E03B model only,
▲: For GZ75E03C model only, △: For GZ75E040 model only, ★: For GZ75E06A model only, ※: For GZ75E070 model only,
◇: For GZ75E080 model only, ◆: For GZ75E090 model only, ◎: For GZ75E110 model only, ♯: For GZ75E120 model only,
*: For GZ75E230 model only, ☆: For GZ75E23A model only, ⊕: For except GZ75E110 model, Others : Common

Parts List

NOTE : The parts without part number are not supplied.

Symbol No.	Index	Part No.	Description		
201	6-C	44A63208F01	Rack		
202	6-D	41B63283F02	Spring		
● 203	6-D	01A63490F01	Assy., Eject Lever Rivet		
○ 203	6-D	01A63490F01	Assy., Eject Lever Rivet		
■ 203	6-D	01A63490F01	Assy., Eject Lever Rivet		
□ 203	6-D	01A63490F01	Assy., Eject Lever Rivet		
▲ 203	6-D	01A63490F01	Assy., Eject Lever Rivet		
△ 203	6-D	01A63490F01	Assy., Eject Lever Rivet		
★ 203	6-D	01A63490F01	Assy., Eject Lever Rivet		
※ 203	6-D	01A63490F01	Assy., Eject Lever Rivet		
◇ 203	6-D	01A63490F01	Assy., Eject Lever Rivet		
◆ 203	6-D	01A63490F01	Assy., Eject Lever Rivet		
◎ 203	6-D	01A71701F01	Assy., Eject Lever Rivet		
# 203	6-D	01A63490F01	Assy., Eject Lever Rivet		
* 203	6-D	01A71701F02	Assy., Eject Lever Rivet		
☆ 203	6-D	01A71701F02	Assy., Eject Lever Rivet		
204	6-D	43A64073F01	Roller, Eject (C)		
205		04A41345P01	Washer, Lock (M1.2)		
206	5-C	41A63284F01	Spring, Turn Eject		
207	5-C	04A41345P15	Washer, Lock (M1.2)		
208	5-C	43A63282F01	Roller, Eject Arm		
209	5-C	41B63283F01	Spring		
⊕ 210	5-D	03S56479F08	Screw, Pan (M1.7 × 2)		
◎ 210	5-D	03S68259F11	Screw, Pan (M1.7 × 2)		
212		04A41345P01	Washer, Lock (M1.7)		
213	4-C	01A63489F01	Assy., Eject Arm Rivet		
214		41B63283F05	Spring		
216	5-E	44A63189F01	Gear, Motor Idler		
217	5-E	44A63190F01	Gear, Eject Idler		
218	5-E	44A63191F01	Gear, Clutch		

Symbol No.	Index	Part No.	Description		
219	5-E	01A63497F01	Assy., Clutch Lever Rivet		
220	5-F	41B63283F08	Spring		
⊕ 221	4-D	03S56479F09	Screw, Pan (M1.7 × 6)		
◎ 221	4-D	03S68259F04	Screw, Pan (M1.7 × 6)		
● 222	5-F	03S56479F04	Screw, Pan (M2 × 7)		
○ 222	5-F	03S56479F04	Screw, Pan (M2 × 7)		
■ 222	5-F	03S56479F04	Screw, Pan (M2 × 7)		
□ 222	5-F	03S56479F04	Screw, Pan (M2 × 7)		
▲ 222	5-F	03S56479F04	Screw, Pan (M2 × 7)		
△ 222	5-F	03S56479F04	Screw, Pan (M2 × 7)		
※ 222	5-F	03S56479F04	Screw, Pan (M2 × 7)		
◇ 222	5-F	03S56479F04	Screw, Pan (M2 × 7)		
◆ 222	5-F	03S56479F04	Screw, Pan (M2 × 7)		
◎ 222	5-F	03S68259F03	Screw, Pan (M2 × 7)		
# 222	5-F	03S56479F04	Screw, Pan (M2 × 7)		
* 222	5-F	03S68259F09	Screw, Pan (M2×6)		
☆ 222	5-F	03S68259F09	Screw, Pan (M2×6)		
223	5-G	41B63283F07	Spring		
224	5-C	43A63281F01	Roller, Plate Base		
⊕ 225		03S56479F07	Screw, Countersink (M2.6 × 3)		
◎ 225		03S68259F13	Screw, Countersink (M2.6 × 3)		
● 226	4-B	45B63199F01	Slider		
○ 226	4-B	45B63199F01	Slider		
■ 226	4-B	45B63199F01	Slider		
□ 226	4-B	45B63199F01	Slider		
▲ 226	4-B	45B63199F01	Slider		
△ 226	4-B	45B63199F01	Slider		
★ 226	4-B	45B63199F01	Slider		
※ 226	4-B	45B63199F01	Slider		
◇ 226	4-B	45B63199F01	Slider		
◆ 226	4-B	45B63199F01	Slider		
◎ 226	4-B	45B71985F01	Slider		
# 226	4-B	45B63199F01	Slider		
* 226	4-B	45B82846F01	Slider		
☆ 226	4-B	45B82846F01	Slider		

Note : ● : For GZ75E01A model only, ○ : For GZ75E02B model only, ■ : For GZ75E02C model only, □ : For GZ75E03B model only,
▲ : For GZ75E03C model only, △ : For GZ75E040 model only, ★ : For GZ75E06A model only, ※ : For GZ75E070 model only,
◇ : For GZ75E080 model only, ◆ : For GZ75E090 model only, ◎ : For GZ75E110 model only, # : For GZ75E120 model only,
* : For GZ75E230 model only, ☆ : For GZ75E23A model only, ⊕ : For except GZ75E110 model, Others : Common

NOTE : The parts without part number are not supplied.

Symbol No.		Index	Part No.	Description		
	227	4-B	47A63278F01	Shaft, Slider		
	228		03D40014G12	Screw, W/Washer (M2.6 × 4)		
●	229	4-B	01A63494F01	Assy., Cassette Holder Rivet		
○	229	4-B	01A63494F01	Assy., Cassette Holder Rivet		
■	229	4-B	01A63494F01	Assy., Cassette Holder Rivet		
□	229	4-B	01A63494F01	Assy., Cassette Holder Rivet		
▲	229	4-B	01A63494F01	Assy., Cassette Holder Rivet		
△	229	4-B	01A63494F01	Assy., Cassette Holder Rivet		
★	229	4-B	01A63494F01	Assy., Cassette Holder Rivet		
※	229	4-B	01A63494F01	Assy., Cassette Holder Rivet		
◇	229	4-B	01A63494F01	Assy., Cassette Holder Rivet		
◆	229	4-B	01A63494F01	Assy., Cassette Holder Rivet		
◎	229	5-A	07C63151F01	Holder, Cassette		
#	229	4-B	01A63494F01	Assy., Cassette Holder Rivet		
∗	229	5-A	07C63151F01	Holder, Cassette		
☆	229	5-A	07C63151F01	Holder, Cassette		
⊕	230	4-B	01V69200F02	Assy., Pinch Roller		
◎	230	4-B	01V73600F68	Assy., Pinch Roller		
	231		04C42091G04	Ring, "E" (M3)		
	233		41B63283F03	Spring		
	234	4-E	41B63283F04	Spring		
	235	4-E	01V68400F39	Assy., Pause Gear		
	236		44A63196F01	Gear, Take-up		
	237		04A41345P12	Washer, Lock (M1.7)		
	238		49A64627F01	Cap, Reel		
	239		49A64626F01	Ring, Reel		
	240		41A64628F01	Spring, Reel		
	241	4-F	41A66291F01	Spring, Eject Lock		
	242	4-F	01T72396F01	Assy., Reel		
	243		04S40075G06	Washer, Polyslider (M2.1)		
●	244	4-H	01A63495F01	Bracket, Reel		
○	244	4-H	01A63495F01	Bracket, Reel		
■	244	4-H	01A63495F01	Bracket, Reel		
□	244	4-H	01A63495F01	Bracket, Reel		
▲	244	4-H	01A63495F01	Bracket, Reel		
△	244	4-H	01A63495F01	Bracket, Reel		
★	244	4-H	01A63495F01	Bracket, Reel		
※	244	4-H	01A63495F01	Bracket, Reel		
◇	244	4-H	01A63495F01	Bracket, Reel		
◆	244	4-H	01A63495F01	Bracket, Reel		

Symbol No.		Index	Part No.	Description		
◎	244	4-H	01A63495F01	Bracket, Reel		
#	244	4-H	01A63495F01	Bracket, Reel		
∗	244	4-H	01A63495F04	Bracket, Reel		
☆	244	4-H	01A63495F04	Bracket, Reel		
	245	4-F	45A63173F01	Lever, Play Lock		
●	246	3-A	01A63491F01	Assy., Plate Base Rivet		
○	246	3-A	01A63491F01	Assy., Plate Base Rivet		
■	246	3-A	01A63491F01	Assy., Plate Base Rivet		
□	246	3-A	01A63491F01	Assy., Plate Base Rivet		
▲	246	3-A	01A63491F01	Assy., Plate Base Rivet		
△	246	3-A	01A63491F01	Assy., Plate Base Rivet		
★	246	3-A	01A63491F01	Assy., Plate Base Rivet		
※	246	3-A	01A63491F01	Assy., Plate Base Rivet		
◇	246	3-A	01A63491F01	Assy., Plate Base Rivet		
◆	246	3-A	01A63491F01	Assy., Plate Base Rivet		
◎	246	3-A	01A63491F01	Assy., Plate Base Rivet		
#	246	3-A	01A63491F01	Assy., Plate Base Rivet		
∗	246	3-A	01A82275F02	Assy., Plate Base Rivet		
☆	246	3-A	01A82275F02	Assy., Plate Base Rivet		
●	247	3-B	07A63203F01	Holder, Guide		
○	247	3-B	07A63203F01	Holder, Guide		
■	247	3-B	07A63203F01	Holder, Guide		
□	247	3-B	07A63203F01	Holder, Guide		
▲	247	3-B	07A63203F01	Holder, Guide		
△	247	3-B	07A63203F01	Holder, Guide		
★	247	3-B	07A63203F01	Holder, Guide		
※	247	3-B	07A63203F01	Holder, Guide		
◇	247	3-B	07A63203F01	Holder, Guide		
◆	247	3-B	07A63203F01	Holder, Guide		
◎	247	3-B	07A63203F01	Holder, Guide		
#	247	3-B	07A63203F01	Holder, Guide		
⊕	249	3-C	01V69200F03	Assy., Pinch Roller		
◎	249	3-C	01V73600F70	Assy., Pinch Roller		
	250	3-C	45A63178F01	Lever, Micro Switch		
	251	3-D	03S44205G30	Screw, Pan (M2.6 × 4)		

Note : ● : For GZ75E01A model only, ○ : For GZ75E02B model only, ■ : For GZ75E02C model only, □ : For GZ75E03B model only,
▲ : For GZ75E03C model only, △ : For GZ75E040 model only, ★ : For GZ75E06A model only, ※ : For GZ75E070 model only,
◇ : For GZ75E080 model only, ◆ : For GZ75E090 model only, ◎ : For GZ75E110 model only, # : For GZ75E120 model only,
∗ : For GZ75E230 model only, ☆ : For GZ75E23A model only, ⊕ : For except GZ75E110 model, Others : Common

NOTE : The parts without part number are not supplied.

Symbol No.	Index	Part No.	Description		
● 252	3-E	01A63483F01	Assy., RF Idler Rivet		
○ 252	3-E	01A63483F01	Assy., RF Idler Rivet		
■ 252	3-E	01A63483F01	Assy., RF Idler Rivet		
□ 252	3-E	01A63483F01	Assy., RF Idler Rivet		
▲ 252	3-E	01A63483F01	Assy., RF Idler Rivet		
△ 252	3-E	01A63483F01	Assy., RF Idler Rivet		
★ 252	3-E	01A63483F01	Assy., RF Idler Rivet		
※ 252	3-E	01A63483F01	Assy., RF Idler Rivet		
◇ 252	3-E	01A63483F01	Assy., RF Idler Rivet		
◆ 252	3-E	01A63483F01	Assy., RF Idler Rivet		
◎ 252	3-E	01A63483F01	Assy., RF Idler Rivet		
# 252	3-E	01A63483F01	Assy., RF Idler Rivet		
* 252	3-E	01A63483F02	Assy., RF Idler Rivet		
☆ 252	3-E	01A63483F02	Assy., RF Idler Rivet		
253		04A41345P04	Washer, Lock (M2.6)		
254	3-E	44A63197F01	Gear, RF Idler		
255	3-F	41A63285F01	Spring, Play Act		
256	3-F	45A63179F01	Lever, Play Solenoid		
257	2-C	41A63286F01	Spring, Pinch Roller		
258	3-G	01T72396F02	Assy., Reel		
259	3-G	04S40075G17	Washer, Polyslider (M4.1)		
⊕ 260	3-H	01V64100F95	Assy., Flywheel Bracket		
◎ 260	3-H	01V71800F19	Assy., Flywheel Bracket		
261	3-B	03S40019G03	Screw, F Lock (M2 × 4)		
262	3-B	43A44456F06	Spacer, Head		
263	3-B	43B63198F01	Guide, Tape		
264	3-B	41A63290F01	Spring, Tape Guide		
265	3-B	41A63286F02	Spring, Pinch Roller		
● 266		03S68259F01	Screw, Flat (M2.6 × 3)		
○ 266		03S68259F01	Screw, Flat (M2.6 × 3)		
■ 266		03S68259F01	Screw, Flat (M2.6 × 3)		
□ 266		03S68259F01	Screw, Flat (M2.6 × 3)		
▲ 266		03S68259F01	Screw, Flat (M2.6 × 3)		
△ 266		03S68259F01	Screw, Flat (M2.6 × 3)		
★ 266		03S68259F01	Screw, Flat (M2.6 × 3)		
※ 266		03S68259F01	Screw, Flat (M2.6 × 3)		
◇ 266		03S68259F01	Screw, Flat (M2.6 × 3)		
◆ 266		03S68259F01	Screw, Flat (M2.6 × 3)		
◎ 266		03S68259F01	Screw, Flat (M2.6 × 3)		
# 266		03S68259F01	Screw, Flat (M2.6 × 3)		
* 266		03S68259F04	Screw, Pan (M2.6 × 4.5)		
☆ 266		03S68259F04	Screw, Pan (M2.6 × 4.5)		
⊕ 268	3-C	03S56479F02	Screw, Bind (M2.3 × 8)		
◎ 268	3-C	03S68259F06	Screw, Bind (M2.3 × 8)		
269	3-E	41A63287F01	Spring, Reverse Lock		
270	3-E	41A63288F01	Spring, Reverse Act		
271	3-F	01A63496F01	Assy., Frame Reverse Rivet		
272	3-G	44B63188F01	Gear, Eject		
● 273	3-G	30T63478F02	Lead Wire		
○ 273	3-G	30T63478F02	Lead Wire		
■ 273	3-G	30T63478F02	Lead Wire		
□ 273	3-G	30T63478F02	Lead Wire		
▲ 273	3-G	30T63478F02	Lead Wire		
△ 273	3-G	30T63478F02	Lead Wire		
★ 273	3-G	30T63478F02	Lead Wire		
※ 273	3-G	30T63478F02	Lead Wire		
◇ 273	3-G	30T63478F02	Lead Wire		
◆ 273	3-G	30T63478F02	Lead Wire		
◎ 273	3-G	30T63478F02	Lead Wire		
# 273	3-G	30T63478F02	Lead Wire		
* 273	3-G	30T63478F03	Lead Wire		
☆ 273	3-G	30T63478F03	Lead Wire		
274	3-G	30T63478F01	Lead Wire		
● 275	3-G	01V64100F92	Assy., Reel P.C. Board		
○ 275	3-G	01V64100F92	Assy., Reel P.C. Board		

Note : ● : For GZ75E01A model only, ○ : For GZ75E02B model only, ■ : For GZ75E02C model only, □ : For GZ75E03B model only,
▲ : For GZ75E03C model only, △ : For GZ75E040 model only, ★ : For GZ75E06A model only, ※ : For GZ75E070 model only,
◇ : For GZ75E080 model only, ◆ : For GZ75E090 model only, ◎ : For GZ75E110 model only, # : For GZ75E120 model only,
* : For GZ75E230 model only, ☆ : For GZ75E23A model only, ⊕ : For except GZ75E110 model, Others : Common

NOTE : The parts without part number are not supplied.

Symbol No.		Index	Part No.	Description		
■	275	3-G	01V64100F92	Assy., Reel P.C. Board		
□	275	3-G	01V64100F92	Assy., Reel P.C. Board		
▲	275	3-G	01V64100F92	Assy., Reel P.C. Board		
△	275	3-G	01V64100F92	Assy., Reel P.C. Board		
★	275	3-G	01V64100F92	Assy., Reel P.C. Board		
※	275	3-G	01V64100F92	Assy., Reel P.C. Board		
◇	275	3-G	01V64100F92	Assy., Reel P.C. Board		
◆	275	3-G	01V64100F92	Assy., Reel P.C. Board		
◎	275	3-G	01V64100F92	Assy., Reel P.C. Board		
#	275	3-G	01V64100F92	Assy., Reel P.C. Board		
*	275	3-G	01V83600F37	Assy., Reel P.C. Board		
☆	275	3-G	01V83600F37	Assy., Reel P.C. Board		
	276	3-B	41A63289F01	Spring, Head		
	277	2-C	07B63205F01	Frame, Head		
	278	2-D	84A63235F01	Program Switch P.C. Board		
	279	2-E	03S40011G58	Screw, Pan (M2.6×3)		
	280	2-E	84A63234F01	R/F Switch P.C. Board (included RF)		
	281	2-E	44B63187F01	Gear, Change		
	282	3-F	76A63231F01	Chip		
⊕	283	2-F	01A63485F01	Assy., RF Lock Rivet		
◎	283	2-F	01A71958F01	Assy., RF Lock Rivet		
	284	2-F	41B63283F09	Spring		
●	285	2-B	01V73300F71	Assy., GZ Audio P.C. Board		
■	285	2-B	01V73300F71	Assy., GZ Audio P.C. Board		
▲	285	2-B	01V73700F53	Assy., GZ Audio P.C. Board		
○	285	2-B	01V64600F91	Assy., GZ Audio P.C. Board		
□	285	2-B	01V69100F14	Assy., GZ Audio P.C. Board		
◆	285	2-B	01V69100F14	Assy., GZ Audio P.C. Board		
★	285	2-B	01V81400F69	Assy., GZ Audio P.C. Board		
◇	285	2-B	01V73800F11	Assy., GZ Audio P.C. Board		
◎	285	2-B	01V73800F98	Assy., GZ Audio P.C. Board		
	286	2-B	84T63477F01	Head/Flexible P.C. Board		
	287	2-B	01A63492F01	Assy., RF Frame Rivet		
⊕	288	2-B	03S52360F95	Screw, Pan (M2 × 2.5)		
◎	288	2-B	03S52360F95	Screw, Pan (M2 × 2.5)		
	289	2-B	44A63194F01	Gear, RF (B)		
	290	2-C	44A63193F01	Gear, RF (A)		
	291	2-C	01A63493F01	Assy., RF Gear Rivet		
	292	2-C	04A41345P11	Washer, Lock (M1.2)		
	293	2-D	45A63174F01	Lever, Solenoid Link		
⊕	294	2-F	01A63484F01	Assy., RF Link Rivet		
◎	294	2-F	45A71937F01	Assy., RF Link Rivet		
	295	2-F	45A63176F01	Lever, RF Spring (B)		
	296	2-G	41B63283F06	Spring		
	297	2-G	04S40075G05	Washer, Polyslider (M2.1)		
⊕	298	2-G	01T63210F02	Assy., Flywheel		
◎	298	2-G	01T63210F03	Assy., Flywheel		
	299	2-H	42A40969F01	Belt		
	300	1-C	03S44205G42	Screw, Pan (M2.6 × 4)		
●	301	1-D	30T68768F01	Lead Wire Parallel (9P)		
○	301	1-D	30T68768F01	Lead Wire Parallel (9P)		
■	301	1-D	30T68768F01	Lead Wire Parallel (9P)		
★	301	1-D	30T68768F01	Lead Wire Parallel (9P)		
◇	301	1-D	30T68768F01	Lead Wire Parallel (9P)		
●	302	1-D	01V64100F98	Assy., GZ Control P.C. Board		
○	302	1-D	01V68900F90	Assy., GZ Control P.C. Board		
■	302	1-D	01V68900F90	Assy., GZ Control P.C. Board		
□	302	1-D	01V69100F13	Assy., GZ Control P.C. Board		
▲	302	1-D	01V69100F13	Assy., GZ Control P.C. Board		
△	302	1-D	01V69100F13	Assy., GZ Control P.C. Board		

Note : ● : For GZ75E01A model only, ○ : For GZ75E02B model only, ■ : For GZ75E02C model only, □ : For GZ75E03B model only,
▲ : For GZ75E03C model only, △ : For GZ75E040 model only, ★ : For GZ75E06A model only, ※ : For GZ75E070 model only,
◇ : For GZ75E080 model only, ◆ : For GZ75E090 model only, ◎ : For GZ75E110 model only, # : For GZ75E120 model only,
* : For GZ75E230 model only, ☆ : For GZ75E23A model only, ⊕ : For except GZ75E110 model, Others : Common

NOTE : The parts without part number are not supplied.

Symbol	No.	Index	Part No.	Description		
★	302	1-D	01V73800F10	Assy., GZ Control P.C. Board		
※	302	1-D	01V73200F86	Assy., GZ Control P.C. Board		
◇	302	1-D	01V73800F10	Assy., GZ Control P.C. Board		
◆	302	1-D	01V69100F13	Assy., GZ Control P.C. Board		
◎	302	1-D	01V73800F37	Assy., GZ Control P.C. Board		
#	302	1-D	01V69100F13	Assy., GZ Control P.C. Board		
*	302	1-D	01V83200F67	Assy., GZ Control P.C. Board		
☆	302	1-D	01V83200F67	Assy., GZ Control P.C. Board		
	304	1-F	44A63207F01	Gear, RF Swing		
	305	1-F	45A63175F01	Lever, RF Spring (A)		
	306	1-F	49A63202F01	Pulley, Idler		
	307	4-C	43A67287F01	Roller, Eject Guide		
	308	4-E	04A41345P09	Washer, Lock (M2.3)		
	309	3-D	43A44303P03	Washer, Oil Shield (M1.9)		
⊕	310	2-G	01T63210F01	Assy., Flywheel		
◎	310	2-G	01T63210F03	Assy., Flywheel		
⊕	311	4-A	04S40075G11	Washer, Polyslider (M3.1)		
○	311	4-A	04S40075G11	Washer, Polyslider (M3.1)		
■	311	4-A	04S40075G11	Washer, Polyslider (M3.1)		
□	311	4-A	04S40075G11	Washer, Polyslider (M3.1)		
▲	311	4-A	04S40075G11	Washer, Polyslider (M3.1)		
△	311	4-A	04S40075G11	Washer, Polyslider (M3.1)		
★	311	4-A	04S40075G11	Washer, Polyslider (M3.1)		
※	311	4-A	04S40075G11	Washer, Polyslider (M3.1)		
◇	311	4-A	04S40075G11	Washer, Polyslider (M3.1)		
◆	311	4-A	04S40075G11	Washer, Polyslider (M3.1)		
#	311	4-A	04S40075G11	Washer, Polyslider (M3.1)		
⊕	312	4-B	75A41807F01	Cushion, Rubber		
○	312	4-B	75A41807F01	Cushion, Rubber		
■	312	4-B	75A41807F01	Cushion, Rubber		

Symbol	No.	Index	Part No.	Description		
□	312	4-B	75A41807F01	Cushion, Rubber		
▲	312	4-B	75A41807F01	Cushion, Rubber		
△	312	4-B	75A41807F01	Cushion, Rubber		
★	312	4-B	75A41807F01	Cushion, Rubber		
※	312	4-B	75A41807F01	Cushion, Rubber		
◇	312	4-B	75A41807F01	Cushion, Rubber		
◆	312	4-B	75A41807F01	Cushion, Rubber		
◎	312	4-B	75A41807F01	Cushion, Rubber		
#	312	4-B	75A41807F01	Cushion, Rubber		
⊕	313	3-D	03A63557F01	Screw, Pan (M1.7 × 2)		
◎	313	3-D	03S68259F11	Screw, Pan (M1.7×2)		
⊕	314	4-E	03S68259F21	Screw, Pan (M2.6 × 2.5)		
○	314	4-E	03S68259F21	Screw, Pan (M2.6 × 2.5)		
■	314	4-E	03S68259F21	Screw, Pan (M2.6 × 2.5)		
□	314	4-E	03S68259F21	Screw, Pan (M2.6 × 2.5)		
▲	314	4-E	03S68259F21	Screw, Pan (M2.6 × 2.5)		
△	314	4-E	03S68259F21	Screw, Pan (M2.6 × 2.5)		
★	314	4-E	03S68259F21	Screw, Pan (M2.6 × 2.5)		
※	314	4-E	03S68259F21	Screw, Pan (M2.6 × 2.5)		
◇	314	4-E	03S68259F21	Screw, Pan (M2.6 × 2.5)		
◆	314	4-E	03S68259F21	Screw, Pan (M2.6 × 2.5)		
◎	314	4-E	03S68259F24	Screw, Pan (M2.6 × 4.5)		
#	314	4-E	03S68259F21	Screw, Pan (M2.6 × 2.5)		
*	314	4-E	03S56479F07	Screw, Countersink (M2.6×3)		
☆	314	4-E	03S56479F07	Screw, Countersink (M2.6×3)		
	315	3-F	44B70362F01	Gear, Eject		
★	316	4-C	03S68259F04	Screw, Pan (M1.7 × 6)		
◇	316	4-C	03S68259F04	Screw, Pan (M1.7 × 6)		
◆	316	4-C	03S68259F04	Screw, Pan (M1.7 × 6)		
★	317	5-B	07A72995F01	Plate, Eject Switch		
◇	317	5-B	07A72995F01	Plate, Eject Switch		
◆	317	5-B	07A72995F01	Plate, Eject Switch		
◎	318	6-B	43A72151F01	Spacer, Motor		
*	318	6-B	43A72151F01	Spacer, Motor		
☆	318	6-B	43A72151F01	Spacer, Motor		

Note : ● : For GZ75E01A model only, ○ : For GZ75E02B model only, ■ : For GZ75E02C model only, □ : For GZ75E03B model only,
▲ : For GZ75E03C model only, △ : For GZ75E040 model only, ★ : For GZ75E06A model only, ※ : For GZ75E070 model only,
◇ : For GZ75E080 model only, ◆ : For GZ75E090 model only, ◎ : For GZ75E110 model only, # : For GZ75E120 model only,
* : For GZ75E230 model only, ☆ : For GZ75E23A model only, ⊕ : For except GZ75E110 model, Others : Common

NOTE : The parts without part number are not supplied.

Symbol No.		Index	Part No.	Description		
*	319	6-E	07A70516F01	Lever, Reel Bracket		
☆	319	6-E	07A70516F01	Lever, Reel Bracket		
*	320	6-E	41A70517F01	Spring, Reel Bracket		
☆	320	6-E	41A70517F01	Spring, Reel Bracket		
*	321	1-B	14A70013F01	Insulator, Cover Wire		
☆	321	1-B	14A70013F01	Insulator, Cover Wire		
*	322	1-C	30T82140F01	Wire, Parallel 6P		
☆	322	1-C	30T82140F01	Wire, Parallel 6P		
*	323	1-A	14A82701F01	Spacer, Motor		
☆	323	1-A	14A82701F01	Spacer, Motor		
*	324	1-C	14S58462F11	Insulator, Cover		
☆	324	1-C	14S58462F11	Insulator, Cover		
●	325	6-D	04A41345P01	Washer, Lock (M1.2)		
○	325	6-D	04A41345P01	Washer, Lock (M1.2)		
■	325	6-D	04A41345P01	Washer, Lock (M1.2)		
□	325	6-D	04A41345P01	Washer, Lock (M1.2)		
▲	325	6-D	04A41345P01	Washer, LoCK (M1.2)		
△	325	6-D	04A41345P01	Washer, Lock (M1.2)		
★	325	6-D	04A41345P01	Washer, Lock (M1.2)		
※	325	6-D	04A41345P01	Washer, Lock (M1.2)		
◇	325	6-D	04A41345P01	Washer, Lock (M1.2)		
◆	325	6-D	04A41345P01	Washer, Lock (M1.2)		
◎	325	6-D	04A41345P01	Washer, Lock (M1.2)		
#	325	6-D	04A41345P01	Washer, Lock (M1.2)		
*	325	6-D	04A41345P15	Washer, Lock (M1.2)		
☆	325	6-D	04A41345P15	Washer, Lock (M1.2)		
●	326		04A41345P15	Washer, Lock (M1.2)		
○	326		04A41345P15	Washer, Lock (M1.2)		
■	326		04A41345P15	Washer, Lock (M1.2)		
□	326		04A41345P15	Washer, Lock (M1.2)		
▲	326		04A41345P15	Washer, Lock (M1.2)		
△	326		04A41345P15	Washer, Lock (M1.2)		
★	326		04A41345P15	Washer, Lock (M1.2)		
※	326		04A41345P15	Washer, Lock (M1.2)		
◇	326		04A41345P15	Washer, Lock (M1.2)		
◆	326		04A41345P15	Washer, Lock (M1.2)		
◎	326		04A41345P15	Washer, Lock (M1.2)		
#	326		04A41345P15	Washer, Lock (M1.2)		
*	326		04A41345P01	Washer, Lock (M1.2)		
☆	326		04A41345P01	Washer, Lock (M1.2)		
●	327	5-F	03S56479F09	Screw, Pan (M1.7×6)		
○	327	5-F	03S56479F09	Screw, Pan (M1.7×6)		
■	327	5-F	03S56479F09	Screw, Pan (M1.7×6)		
□	327	5-F	03S56479F09	Screw, Pan (M1.7×6)		
▲	327	5-F	03S56479F09	Screw, Pan (M1.7×6)		
△	327	5-F	03S56479F09	Screw, Pan (M1.7×6)		
★	327	5-F	03S56479F09	Screw, Pan (M1.7×6)		
※	327	5-F	03S56479F09	Screw, Pan (M1.7×6)		
◇	327	5-F	03S56479F09	Screw, Pan (M1.7×6)		
◆	327	5-F	03S56479F09	Screw, Pan (M1.7×6)		
◎	327	5-F	03S68259F04	Screw, Pan (M1.7×6)		
#	327	5-F	03S56479F09	Screw, Pan (M1.7×6)		
*	327	5-F	03S68259F09	Screw, Pan (M2×6)		
☆	327	5-F	03S68259F09	Screw, Pan (M2×6)		
●	328	5-B	03S44205G30	Screw, Pan (M2.6×4)		

Note : ● : For GZ75E01A model only, ○ : For GZ75E02B model only, ■ : For GZ75E02C model only, □ : For GZ75E03B model only,
▲ : For GZ75E03C model only, △ : For GZ75E040 model only, ★ : For GZ75E06A model only, ※ : For GZ75E070 model only,
◇ : For GZ75E080 model only, ◆ : For GZ75E090 model only, ◎ : For GZ75E110 model only, # : For GZ75E120 model only,
* : For GZ75E230 model only, ☆ : For GZ75E23A model only, ⊕ : For except GZ75E110 model, Others : Common

NOTE : The parts without part number are not supplied.

Symbol No.		Index	Part No.	Description		
○	328	5-B	03S44205G30	Screw, Pan (M2.6×4)		
■	328	5-B	03S44205G30	Screw, Pan (M2.6×4)		
□	328	5-B	03S44205G30	Screw, Pan (M2.6×4)		
▲	328	5-B	03S44205G30	Screw, Pan (M2.6×4)		
△	328	5-B	03S44205G30	Screw, Pan (M2.6×4)		
★	328	5-B	03S44205G30	Screw, Pan (M2.6×4)		
※	328	5-B	03S44205G30	Screw, Pan (M2.6×4)		
◇	328	5-B	03S44205G30	Screw, Pan (M2.6×4)		
◆	328	5-B	03S44205G30	Screw, Pan (M2.6×4)		
◎	328	5-B	03S44205G30	Screw, Pan (M2.6×4)		
#	328	5-B	03S44205G30	Screw, Pan (M2.6×4)		
⊕	329	3-E	03S40011G58	Screw, Pan (M2.6×3)		
◎	329	3-E	03S68259F01	Screw, Flat (M2.6×3)		
Miscellaneous						
●	501	6-B	01V64100F96	Assy., Motor		
○	501	6-B	01V64100F96	Assy., Motor		
■	501	6-B	01V64100F96	Assy., Motor		
□	501	6-B	01V64100F96	Assy., Motor		
▲	501	6-B	01V64100F96	Assy., Motor		
△	501	6-B	01V64100F96	Assy., Motor		
★	501	6-B	01V64100F96	Assy., Motor		
※	501	6-B	01V71100F45	Assy., Motor		
◇	501	6-B	01V64100F96	Assy., Motor		
◆	501	6-B	01V64100F96	Assy., Motor		
◎	501	6-B	01V71800F20	Assy., Motor		
#	501	6-B	01V64100F96	Assy., Motor		
*	501	6-B	01V71800F20	Assy., Motor		
☆	501	6-B	01V71800F20	Assy., Motor		
●	502	1-B	01V64100F88	Assy., RF Motor		

Symbol No.		Index	Part No.	Description		
○	502	1-B	01V64100F88	Assy., RF Motor		
■	502	1-B	01V64100F88	Assy., RF Motor		
□	502	1-B	01V64100F88	Assy., RF Motor		
▲	502	1-B	01V64100F88	Assy., RF Motor		
△	502	1-B	01V64100F88	Assy., RF Motor		
★	502	1-B	01V64100F88	Assy., RF Motor		
※	502	1-B	01V64100F88	Assy., RF Motor		
◇	502	1-B	01V64100F88	Assy., RF Motor		
◆	502	1-B	01V64100F88	Assy., RF Motor		
◎	502	1-B	01V64100F88	Assy., RF Motor		
#	502	1-B	01V64100F88	Assy., RF Motor		
*	502	1-B	01V83500F82	Assy., RF Motor		
☆	502	1-B	01V83500F82	Assy., RF Motor		
●	503	3-B	88T74470F01	Assy., Head		
○	503	3-B	88T74470F01	Assy., Head		
■	503	3-B	88T74470F01	Assy., Head		
□	503	3-B	88T74470F01	Assy., Head		
▲	503	3-B	88T74470F01	Assy., Head		
△	503	3-B	88T74470F01	Assy., Head		
★	503	3-B	88T73824F01	Assy., Head		
※	503	3-B	88T68419F01	Assy., Head		
◇	503	3-B	88T74130F01	Assy., Head		
◆	503	3-B	88T74130F01	Assy., Head		
◎	503	3-B	88T71411F01	Assy., Head		
#	503	3-B	88T73824F01	Assy., Head		
*	503	3-B	88T73824F01	Assy., Head		
☆	503	3-B	88T74470F01	Assy., Head		
	504	2-D	01A63212F01	Assy., Play Solenoid		
	505	3-D	01A63213F01	Assy., Program Solenoid		
	506	5-G	01A63214F01	Assy., RF Solenoid		
	507	4-D	01A63215F01	Assy., Eject Solenoid		
	508	3-G	51T63433F01	Photo, Sensor		
	509	3-G	51T63433F01	Photo, Sensor		
	510	3-C	40T52216F01	Switch, Micro		
	511	2-D	40T63432F01	Switch, Slide		
	512	4-D	40T60329F02	Switch, Leaf		
●	513	5-F	40T60329F03	Switch, Leaf		
○	513	5-F	40T60329F03	Switch, Leaf		
■	513	5-F	40T60329F03	Switch, Leaf		
□	513	5-F	40T60329F03	Switch, Leaf		
▲	513	5-F	40T60329F03	Switch, Leaf		
△	513	5-F	40T60329F03	Switch, Leaf		
★	513	5-F	40T60329F03	Switch, Leaf		
※	513	5-F	40T60329F03	Switch, Leaf		
◇	513	5-F	40T60329F03	Switch, Leaf		
◆	513	5-F	40T60329F03	Switch, Leaf		
◎	513	5-F	40T60329F03	Switch, Leaf		
#	513	5-F	40T60329F03	Switch, Leaf		
*	513	5-F	40T71025F03	Switch, Detector		

Note : ● : For GZ75E01A model only, ○ : For GZ75E02B model only, ■ : For GZ75E02C model only, □ : For GZ75E03B model only,
▲ : For GZ75E03C model only, △ : For GZ75E040 model only, ★ : For GZ75E06A model only, ※ : For GZ75E070 model only,
◇ : For GZ75E080 model only, ◆ : For GZ75E090 model only, ◎ : For GZ75E110 model only, # : For GZ75E120 model only,
* : For GZ75E230 model only, ☆ : For GZ75E23A model only, ⊕ : For except GZ75E110 model, Others : Common

NOTE : The parts without part number are not supplied.

Symbol No.		Index	Part No.	Description		
☆	513	5-F	40T71025F03	Switch, Detector		
●	514	5-F	40T41665F01	Switch, Slide		
○	514	5-F	40T41665F01	Switch, Slide		
■	514	5-F	40T41665F01	Switch, Slide		
□	514	5-F	40T41665F01	Switch, Slide		
▲	514	5-F	40T41665F01	Switch, Slide		
△	514	5-F	40T41665F01	Switch, Slide		
※	514	5-F	40T41665F01	Switch, Slide		
◇	514	5-F	40T41665F01	Switch, Slide		
◆	514	5-F	40T41665F01	Switch, Slide		
◎	514	5-F	40T41665F01	Switch, Slide		
#	514	5-F	40T41665F01	Switch, Slide		
*	514	5-G	40T71025F03	Switch, Detector		
☆	514	5-G	40T71025F03	Switch, Detector		
★	515	4-B	40T60329F02	Switch, Leaf		
◇	515	4-B	40T60329F02	Switch, Leaf		
◆	515	4-B	40T60329F02	Switch, Leaf		

Symbol No.		Index	Part No.	Description		

Note : ● : For GZ75E01A model only, ○ : For GZ75E02B model only, ■ : For GZ75E02C model only, □ : For GZ75E03B model only,
▲ : For GZ75E03C model only, △ : For GZ75E040 model only, ★ : For GZ75E06A model only, ※ : For GZ75E070 model only,
◇ : For GZ75E080 model only, ◆ : For GZ75E090 model only, ◎ : For GZ75E110 model only, # : For GZ75E120 model only,
* : For GZ75E230 model only, ☆ : For GZ75E23A model only, ⊕ : For except GZ75E110 model, Others : Common

Mechanical Parts Replacement

1. Motor Replacement

(1) Remove two screws marked " ○ " as shown in Figure 1.

(2) Remove the belt as shown in Figure 1.

(3) Remove wire leads from the motor terminal and the motor will be removed.

(4) Install a good motor, taking care not to damage gear teeth. To mount the motor perform the above steps in reverse order.

(5) After completion of the replacement, adjust the tape speed, using the test tape (MTT-111).

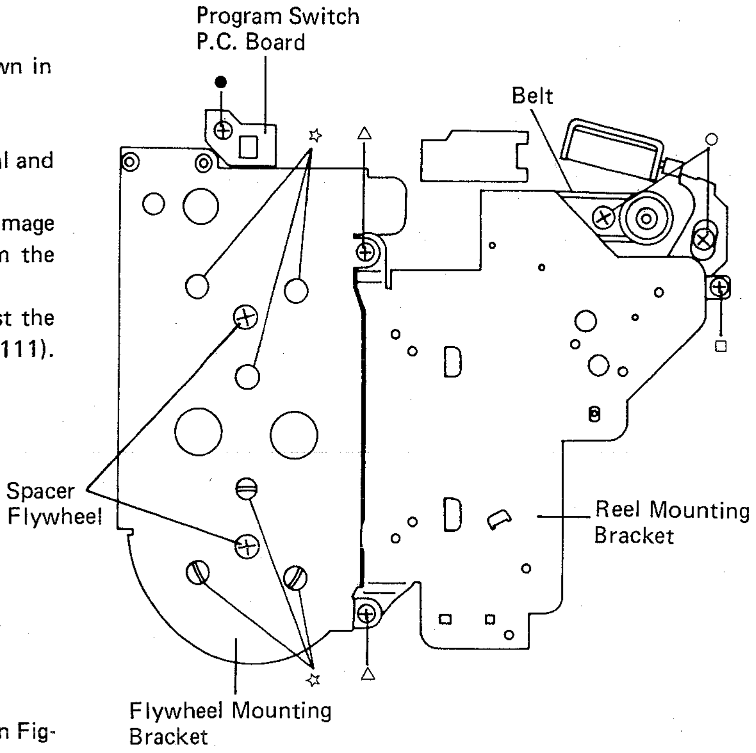

Program Switch
P.C. Board
Belt
Spacer
Flywheel
Reel Mounting
Bracket
Flywheel Mounting
Bracket

Figure 1

2. Belt Replacement

(1) Remove two screws marked " △ " as shown in Figure 1 and remove the flywheel mounting bracket.

(2) Clean a good belt with alcohol and thread the belt as shown in Figure 2. Assembly the unit, performing above steps in reverse order.

Notes: 1. Take care the belt is not stained with oil.
2. When tightening screws for the flywheel bracket, apply tightening torque of 4.5kg/cm.
3. When applying screw lock adhesive to the flywheel spacer, take care that the cross-recessed screw hole is free from the adhesive.

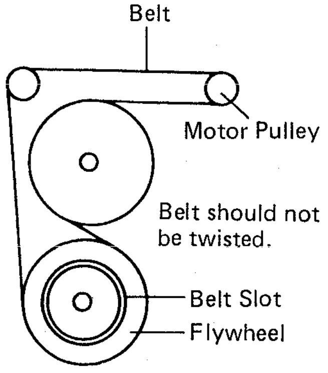

Belt
Motor Pulley
Belt should not
be twisted.
Belt Slot
Flywheel

Figure 2

3. Control P.C. Board Replacement

(1) Desolder nine locations and one screw marked " ※ " as shown in Figure 3.

(2) Remove the flexible wire leads and wire leads connected to the P.C. Board, and the control P.C. Board will be removed.

(3) Replace the board with a good one and assembly the board, using above steps in reverse order.

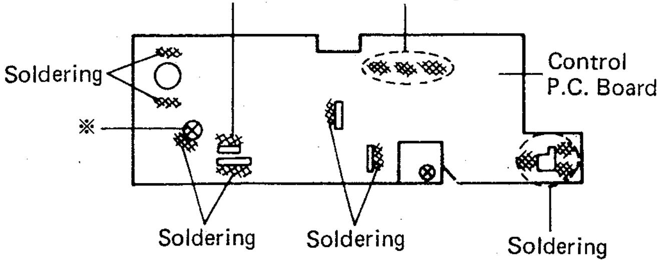

Soldering
Soldering
Soldering
Control
P.C. Board
※
Soldering
Soldering
Soldering

Figure 3

4. **Program Switch P.C. Board Replacement**
   (1) First remove the control P.C. Board as mentioned above and then remove one screw marked " ● " as shown in Figure 1, and the program P.C. Board will be removed.
   (2) Replace the board with a good one and assembly the board, using above steps in reverse order.

5. **Replacement of Audio P.C. Board and Heads**
   (1) Desolder two locations as shown in Figure 4, and the audio P.C. Board will be removed.
   (2) Remove the head flexible P.C. Board connected to the audio P.C. Board.

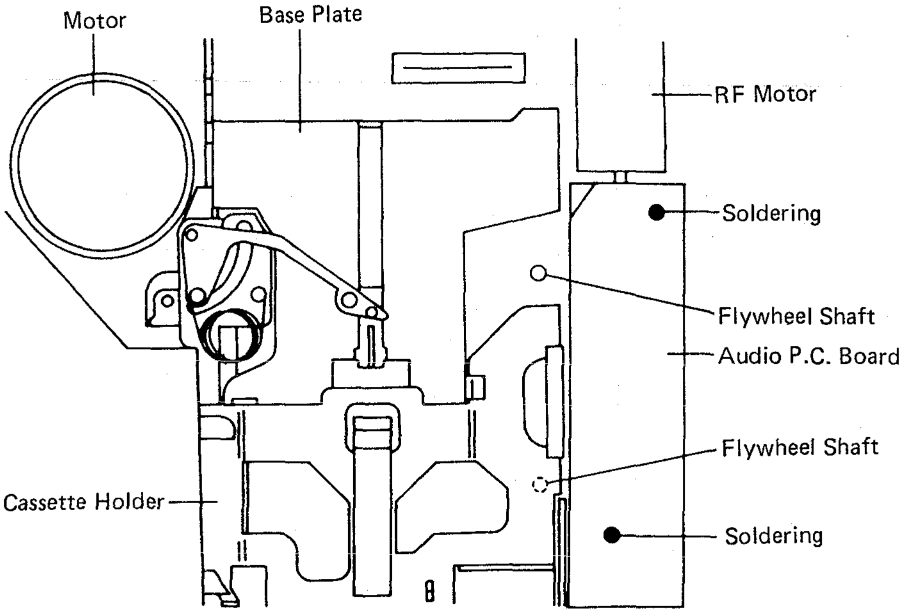

Motor
Base Plate
RF Motor
Soldering
Flywheel Shaft
Audio P.C. Board
Flywheel Shaft
Cassette Holder
Soldering

Figure 4

(3) Remove two screws marked " ▲ " as shown in Figure 5, and remove the guide holder.
(4) Remove one washer as shown in Figure 6, and remove the cassette holder and the base plate.
(5) Remove two screws marked " ■ " as shown in Figure 7 and the head flexible P.C. Board will be removed. (In this case take care not to miss the spacer and the coil spring.)
(6) Remove the head from the P.C. Board.
(7) Replace the head with a good one and mount the head with two screws marked " ■ " as shown in Figure 7. (In this case, insert the spacer to the fixed side screw and the coil spring to the azimuth adjustment side screw.)

Note: Since the flexible P.C. Board is apt to be damaged, handle it with sufficient care.

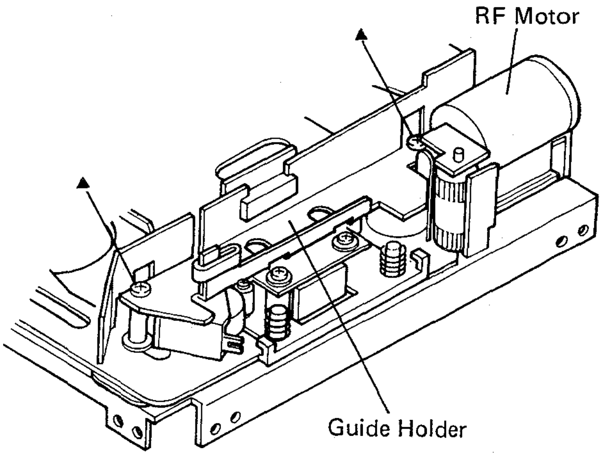

▲
RF Motor
▲
Guide Holder

Figure 5

(8) Perform the head height adjustment.
   1) Place the height adjustment gauge (M-300 or AI-500) on the head base as shown in Figures 8, 9 and 10, and adjust the gauge height so that the check bar can enter the tape head guide smoothly.
   2) When the check bar touches top or bottom guide of the tape guide, insert a spacer (of 0.1mm thickness or a polyslider washer of 0.13mm in thickness). (Or remove the spacer to adjust the height.)

(9) After mounting the head, reassembly using the above steps in reverse order.

(10) Next, adjust head azimuth, using the test tape (MTT-113C).
(Refer to the "Head Azimuth Adjustment".)
After completion of the adjustment apply screw lock adhesive to the adjusting screw. In this case, take care so that the adhesive does not stain the pinch roller.

> **Note:** As shown in Figure 9, if the height gauge is not available, run a tape as usual and adjust the height (head and small guide window) so that no tape curling is observed.

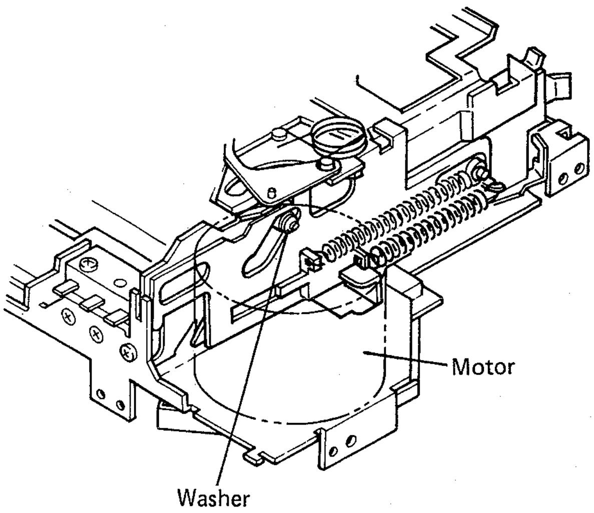

Motor
Washer

Figure 6

6. Pinch Roller Replacement

(1) Remove the control P.C. Board and guide holder, and then the RF motor will be removed.
(2) Remove two E-rings securing the pinch roller as shown in Figure 7, and the pinch roller will be removed.
(3) Replace the pinch roller with a good one, clean the pinch roller with alcohol, and then assembly it, using the above steps in reverse order.
(4) After assembling, make sure performance of tape speed and wow-flutter, using the test tape (MTT-111).

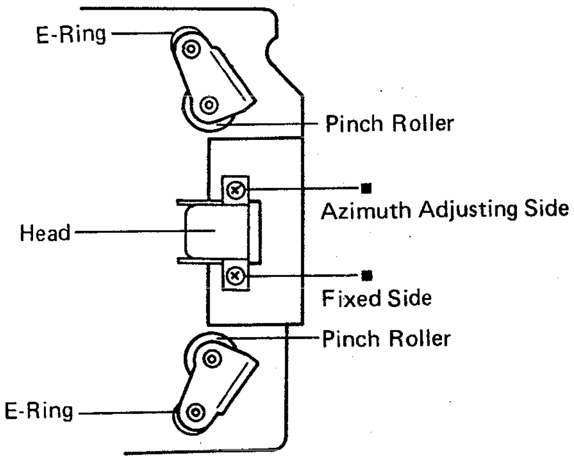

E-Ring
Pinch Roller
Azimuth Adjusting Side
Head
Fixed Side
Pinch Roller
E-Ring

Figure 7

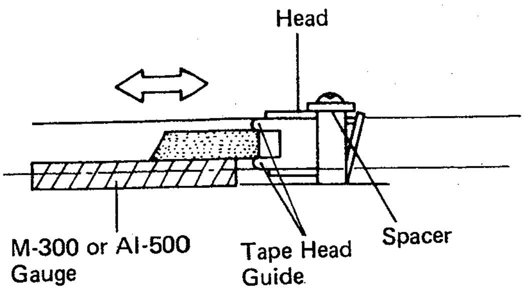

Head
M-300 or AI-500 Gauge
Tape Head Guide
Spacer

Figure 9

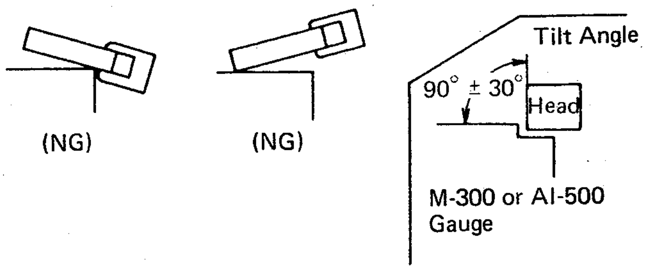

(NG)
(NG)
Tilt Angle
90° ± 30°
Head
M-300 or AI-500 Gauge

Figure 8

7. Flywheel Replacement

(1) Remove the flywheel mounting bracket and the belt.

(2) Remove the flywheel by moving it straight up. (In this case, a washer on opposite chassis will also be removed together, so taking care not to miss the washer.)

(3) Mount a good flywheel. (In this case also insert the flywheel washer and apply a drop of "moble 1" oil.)

(4) Mount the belt and the flywheel mounting bracket.
Make sure flywheel's thrust clearance by pushing tip of the flywheel shaft as shown in Figure 1 and by pushing the flywheel through the opening on the flywheel mounting bracket marked " ☆ " in Figure 1.
Turn the spacer flywheel until the thrust clearance becomes minimum and then fix the spacer with screw adhesive lock.

(5) Finally, mount the oil shield washer to the shaft.

(6) After assembling, make sure the tape speed and wow-flutter, using a test tape (MTT-111).

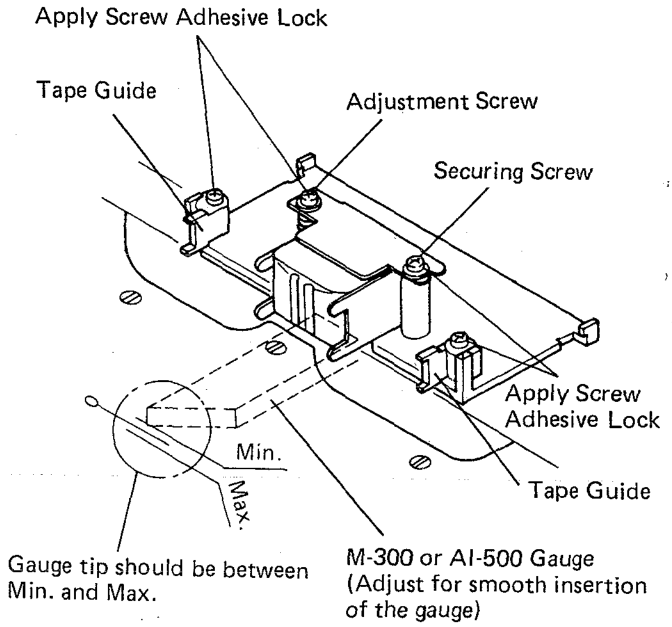

Apply Screw Adhesive Lock
Tape Guide
Adjustment Screw
Securing Screw
Apply Screw Adhesive Lock
Tape Guide
Min.
Max.
Gauge tip should be between Min. and Max.
M-300 or AI-500 Gauge (Adjust for smooth insertion of the gauge)

Figure 10

8. Replacement of Reverse P.C. Board and Reels

(1) Remove two flywheels.

(2) Remove one screw marked " □ " as shown in Figure 1 and remove the flexible wire leads mounted on the P.C. Board.

(3) Remove two lock washers as shown in Figure 11 and the two reels will be removed.

(4) After removal of the reels, desolder two locations as shown in Figure 11 and remove two screws marked " # " and one lock washer. Desolder leads from the RF solenoid as shown in Figure 11.

(5) Replace with good reel(s) and/or reverse P.C. Board.
Assembly them using above steps in reverse order.

(6) After the replacement, make sure the tape speed and wow-flutter, using a test tape (MTT-111).

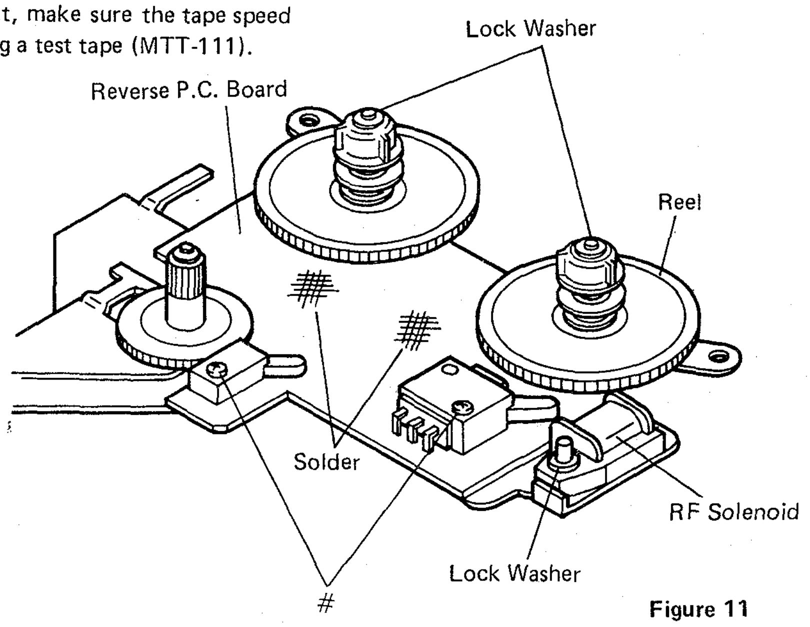

Lock Washer
Reverse P.C. Board
Reel
Solder
RF Solenoid
Lock Washer
#

Figure 11

GZ DECK DISASSEMBLING DIAGRAM

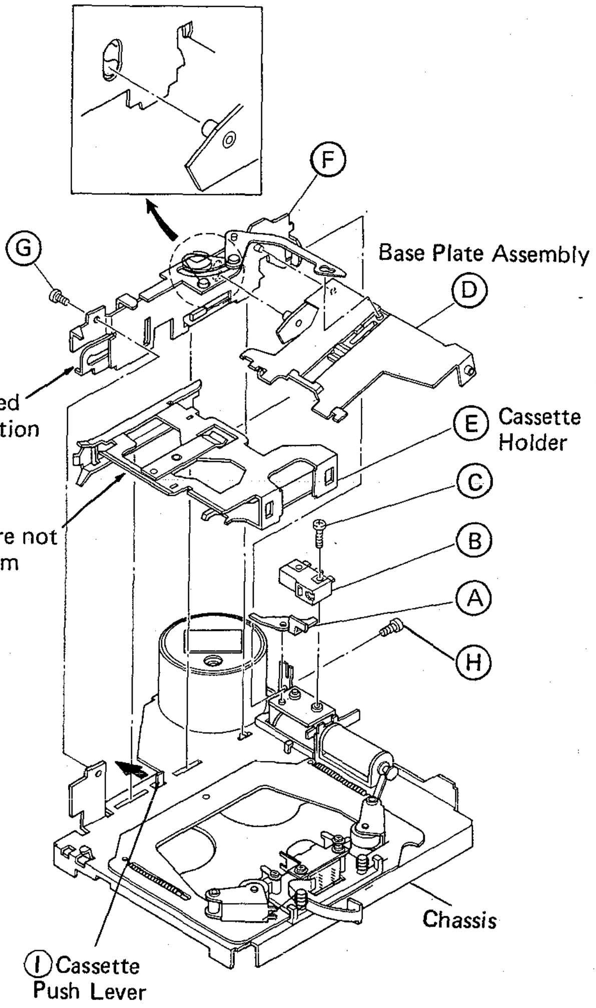
- **Disassembling and assembling methods of the cassette holder and the base plate.**

Assembling Procedures

1. Mount the switch leverⒶ.
2. Mount the micro switchⒷand fix it with screwⒸ.
3. Mount the cassette holder assemblyⒺon the base plate assembly Ⓓ.
4. Mount the eject frame assembly Ⓕ.
5. Mount them on the chassis.
6. Place the chassis vertically and fix with screwsⒼand Ⓗ.

CAUTIONS:

1. When mounting the base plate assemblyⒹand eject frame assembly Ⓔ, take care not to bend the eject arm.
2. When installing frame assembly Ⓕ, press the cassette push leverⒾin direction shown by the arrow.
3. When mounting the eject frame assemblyⒻon the chassis, do not apply excessive force to the frame.



Should be mounted with PLAY condition set. (Eject arm in deep position)

Take care not to deform spring.

Figure 12

Under cassette-in condition, insert the slider shaft Ⓙ into the eject arm Ⓚ, and mount it as illustrated by rotating it in direction shown by the arrow. *(Figure 13)*

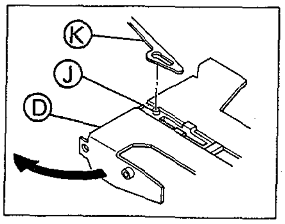


Figure 13

1 Head Base Assembly

① Head frame
② Head assembly
③ Screw, F-Lock
④ Head spring
⑤ Tape guide spring
⑥ Tape guide
⑦ Shim (option)
For head height adjustment

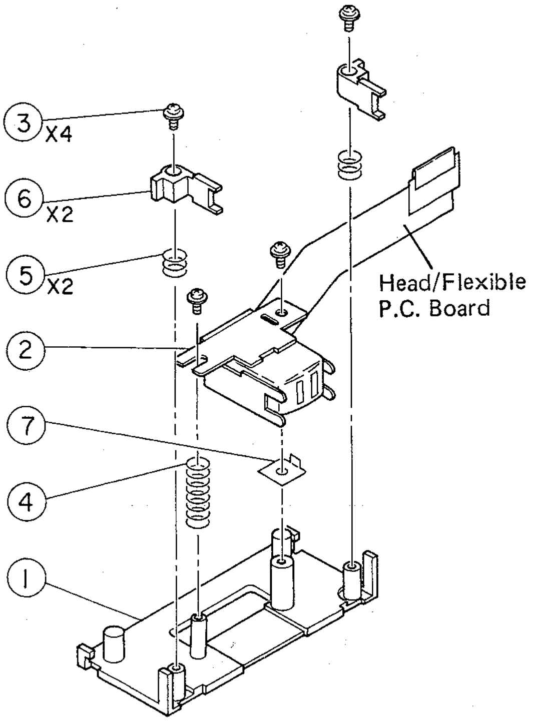

③ X4
⑥ X2
⑤ X2
②
⑦
④
①
Head/Flexible P.C. Board

Figure 14

2 Pinch Roller Assembly

① Pinch roller assembly
② Pinch roller assembly
③ E-ring
④ Pinch roller spring
⑤ Pinch roller spring
⑥ Head base spring

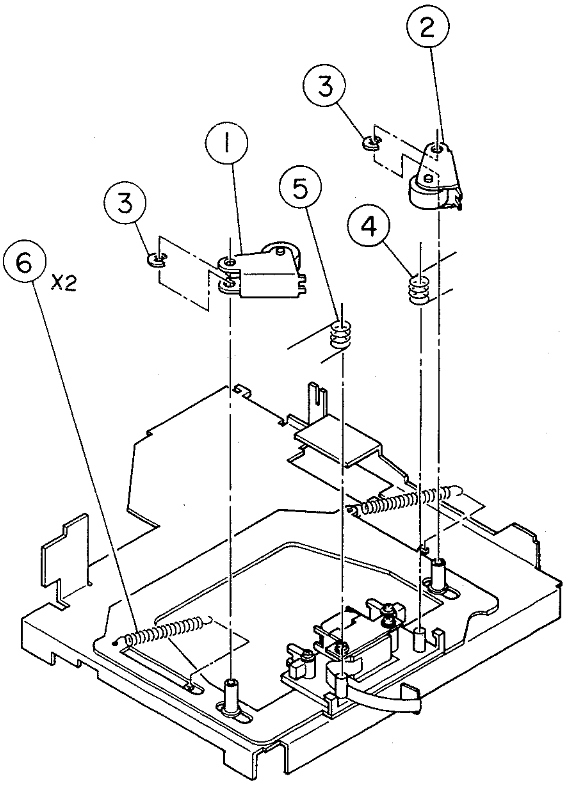


Figure 15

3 Photo-transistor Mounting

① Reverse P.C. Board
② Resistor, 20K ohm 1/6W
④ Photo-transistor
(Take care for mounting direction.)
⑤ Washer (t = 0.13mm)

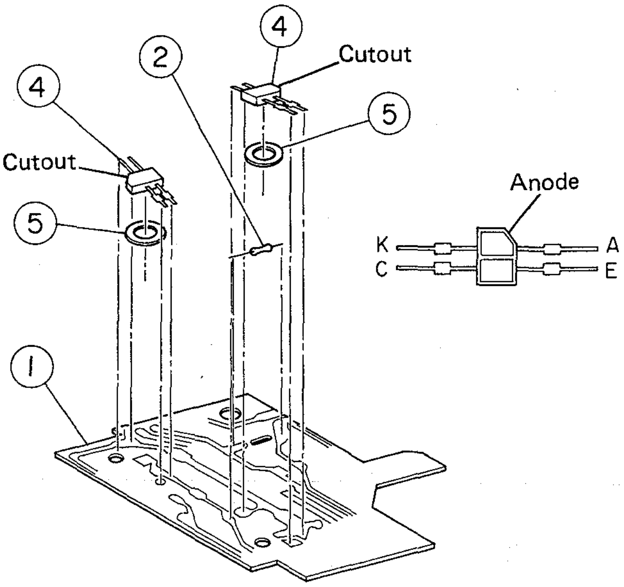

④
②
Cutout
⑤
④
Cutout
⑤
Anode
K
C
A
E
①

Figure 16

4 R/F Frame Mounting

① R/F frame
⑤ Washer
⑥ Gear, R/F (B)
⑦ R/F gear assembly
⑧ Washer
⑨ R/F motor assembly
⑩ Screw

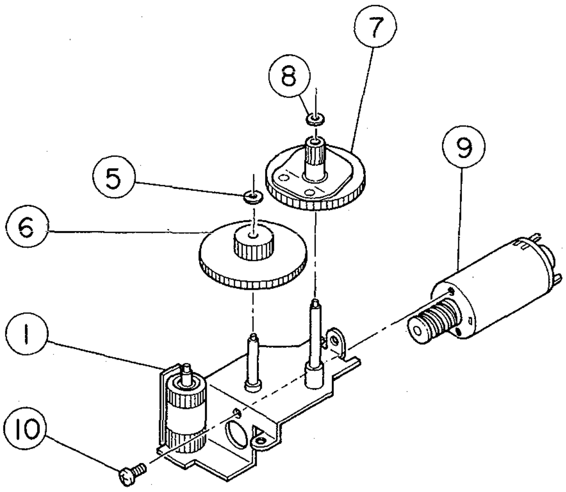


Figure 17